

January 2006

No. OCS06

TECHNICAL DATA BOOK R410A INVERTER

<Indoor unit>

[Model names]

PLA-RP-AA
PLA-RP-AA2
PEAD-RP-EA
PEAD-RP-EA2
PEAD-RP-GA
PKA-RP-GAL
PKA-RP-FAL
PCA-RP-GA
PCA-RP-HA
PSA-RP-GA

<Outdoor unit>

[Model names]

PUHZ-P100/125/140VHA

CONTENTS

1. REFERENCE SERVICE MANUAL	2
2. SPECIFICATIONS	3
3. OUTLINES AND DIMENSIONS	10
4. WIRING DIAGRAM	28
5. REFRIGERANT SYSTEM DIAGRAM	38
6. PERFORMANCE CURVES	40
7. CORRECTION FACTORS	42
8. APPLICABLE EXTENSION PIPE FOR EACH MODEL	43
9. AIR FLOW DATA	46
10. NOISE CRITERION CURVES	58
11. OPTIONAL PARTS	68

kW Model

Mr. SLIM™

For information on service, please refer to the service manual as follows.

1-1. INDOOR UNIT

Model name	Service Ref.	Service Manual No.
PLA-RP50/60/71AA	PLA-RP50/60/71AA.UK	OC335
	PLA-RP50/60/71AA	OC327
PLA-RP100/125/140AA2	PLA-RP100/125/140AA2.UK	OC357
PCA-RP50/60/71GA PCA-RP100/125/140GA	PCA-RP50/60/71GA	OC328
	PCA-RP100/125/140GA	
PCA-RP71/125HA	PCA-RP71/125HA	OC329
PKA-RP50GAL	PKA-RP50GAL	OC330
PKA-RP60/71/100FAL	PKA-RP60/71/100FAL	OC331
PSA-RP71/100/125/140GA	PSA-RP71/100/125/140GA	OC332
PEAD-RP50/60/71/125/140EA PEAD-RP100EA2	PEAD-RP50/60/71/125/140EA.UK	HWE05210
	PEAD-RP100EA2.UK	
PEAD-RP60/71/100GA	PEAD-RP60/71/100GA.UK	HWE05060

1-2. OUTDOOR UNIT

Model name	Service Ref.	Service Manual No.
PUHZ-P100/125/140VHA	PUHZ-P100/125/140VHA.UK	OC359

2-1. CEILING CASSETTE TYPE

Model name	Indoor unit		PLA-RP100AA2	PLA-RP125AA2	PLA-RP140AA2
	Outdoor unit		PUHZ-P100VHA	PUHZ-P125VHA	PUHZ-P140VHA
Cooling	Capacity	Btu/h	32,100	42,000	46,400
		kW	9.4(4.9-11.2)	12.3(5.5-14.0)	13.6(5.5-15.0)
	Total input	kW	3.12	4.09	5.21
	EER		3.01	3.01	2.61
	Energy label class		B	B	D
	SHF		0.80	0.75	0.72
Heating	Capacity	Btu/h	38,200	47,800	54,600
		kW	11.2(4.5-12.5)	14.0(5.0-16.0)	16.0(5.0-18.0)
	Total input	kW	3.28	4.11	4.98
	COP		3.41	3.41	3.21
	Energy label class		B	B	C
	Booster heater	kW	-	-	-
Power supply	Phase	φ	1		
	Cycle	Hz	50		
	Voltage	V	230		
	Breaker size	A	32		40
Indoor unit	Air flow	CMM	19-21-23-27	24-25-27-30	
	(Low-Medium2-Medium1-High)	CFM	670-740-810-950	850-880-950-1060	
	External pressure	Pa	0	0	
	Sound level	dB(A)	33-36-39-41	37-40-43-45	
	(Low-Medium2-Medium1-High)				
	External finish (Panel)		White Munsell 0.70Y 8.59/0.97		
	Dimension Unit (Panel)	W : mm	840 (950)		
		D : mm	840 (950)		
		H : mm	298 (30)		
		W : inch	33-1/16 (37-3/8)		
		D : inch	33-1/16 (37-3/8)		
		H : inch	11-3/4 (1-3/16)		
	Weight Unit (Panel)	kg	32 (5)		
		lbs	71 (11)		
Unit drain pipe I.D.	mm	32			
	inch	1-1/4			
Outdoor unit	Air flow	CMM	60	100	
		CFM	2,120	3,530	
	Sound level at cooling	dB(A)	50	51	52
	Sound level at heating	dB(A)	54	55	56
	External finish		Ivory Munsell 5Y 7/1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	943	1350	
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	37-1/8	53-1/8	
	Weight	kg	75	123	
		lbs	165	271	
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 50		

NOTE: 1. Rating conditions (ISO T1)
Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)
Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)
Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage
198~264V, 50Hz

4. Above data based on indicated voltage
Indoor unit Single phase 230V 50Hz
Outdoor unit Single phase 230V 50Hz

* If optional Air protect guide installed. D.B.-15°C

2-2. CEILING-CONCEALED TYPE

Model name	Indoor unit		PEAD-RP100EA2	PEAD-RP125EA	PEAD-RP140EA
	Outdoor unit		PUHZ-P100VHA	PUHZ-P125VHA	PUHZ-P140VHA
Cooling	Capacity	Btu/h	32,100	42,000	46,400
		kW	9.4(4.9-11.2)	12.3(5.5-14.0)	13.6(5.5-15.0)
	Total input	kW	3.12	4.38	5.21
	EER		3.01	2.81	2.61
	Energy label class		B	C	D
	SHF		0.86	0.83	0.84
Heating	Capacity	Btu/h	38,200	47,800	54,600
		kW	11.2(4.5-12.5)	14.0(5.0-16.0)	16.0(5.0-18.0)
	Total input	kW	3.28	4.11	4.98
	COP		3.41	3.41	3.21
	Energy label class		B	B	C
	Booster heater	kW	-	-	-
Power supply	Phase	φ	1		
	Cycle	Hz	50		
	Voltage	V	230		
	Breaker size	A	32		40
Indoor unit	Air flow (Low-High)	CMM	33.5-42	33.5-42	36.5-46
		CFM	1183-1483	1183-1483	1288-1624
	External pressure	Pa	70(130)		
	Sound level (Low-High)	dB(A)	44-50 (130Pa : 46-52)	44-50 (130Pa : 46-52)	46-51 (130Pa : 47-53)
	External finish		Galvanized sheets		
	Dimension	W : mm	1415		1715
		D : mm	740		
		H : mm	325		
		W : inch	55-11/16		67-1/2
		D : inch	29-1/8		
		H : inch	12-13/16		
	Weight	kg	65	65	70
		lbs	143	143	154
	Unit drain pipe		R1(External thread)		
Outdoor unit	Air flow	CMM	60	100	
		CFM	2,120	3,530	
	Sound level at cooling	dB(A)	50	51	52
	Sound level at heating	dB(A)	54	55	56
	External finish		Ivory Munsell 5Y 7/1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	943	1350	
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	37-1/8	53-1/8	
	Weight	kg	75	123	
		lbs	165	271	
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 50		

NOTE: 1. Rating conditions (ISO T1)
Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)
Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)
Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage
198~264V, 50Hz

4. Above data based on indicated voltage
Indoor unit Single phase 230V 50Hz
Outdoor unit Single phase 230V 50Hz

* If optional Air protect guide installed. D.B.-15°C

Model name	Indoor unit		PEAD-RP100GA
	Outdoor unit		PUHZ-P100VHA
Cooling	Capacity	Btu/h	32,100
		kW	9.4(4.9-11.2)
	Total input	kW	3.60
	EER		2.61
	Energy label class		D
	SHF		0.85
Heating	Capacity	Btu/h	38,200
		kW	11.2(4.5-12.5)
	Total input	kW	3.49
	COP		3.21
	Energy label class		C
	Booster heater	kW	-
Power supply	Phase	φ	1
	Cycle	Hz	50
	Voltage	V	230
	Breaker size	A	32
Indoor unit	Air flow (Low-High)	CMM	26.5-33
		CFM	935-1165
	External pressure	Pa	10/50/70
	Sound level (Low-High)	dB(A)	40-43/42-45/42-46 (10/50/70Pa)
	External finish		Galvanized sheets
	Dimension	W : mm	1411
		D : mm	740
		H : mm	275
		W : inch	55-9/16
		D : inch	29-1/8
		H : inch	10-13/16
	Weight	kg	50
		lbs	111
	Unit drain pipe O.D.	mm	32
		inch	1-1/4
Outdoor unit	Air flow	CMM	60
		CFM	2,120
	Sound level at cooling	dB(A)	50
	Sound level at heating	dB(A)	54
	External finish		Ivory Munsell 5Y 7/1
	Dimension	W : mm	950
		D : mm	330+30
		H : mm	943
		W : inch	37-3/8
		D : inch	13 + 1-3/16
		H : inch	37-1/8
	Weight	kg	75
		lbs	165
Refrigerant pipe size	Gas side O.D.	mm	15.88
		inch	5/8
	Liquid side O.D.	mm	9.52
		inch	3/8
Refrigerant pipe length	Height difference	m	Max. 30
	Length	m	Max. 50

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C ※1
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage

198~264V, 50Hz

4. Above data based on indicated voltage

Indoor unit Single phase 230V 50Hz

Outdoor unit Single phase 230V 50Hz

※1. If optional Air protect guide installed. D.B. -15°C

2-3. WALL-MOUNTED TYPE

Model name	Indoor unit		PKA-RP100FAL
	Outdoor unit		PUHZ-P100VHA
Cooling	Capacity	Btu/h	32,100
		kW	9.4(4.9-11.2)
	Total input	kW	3.12
	EER		3.01
	Energy label class		B
	SHF		0.79
Heating	Capacity	Btu/h	38,200
		kW	11.2(4.5-12.5)
	Total input	kW	3.49
	COP		3.21
	Energy label class		C
	Booster heater	kW	-
Power supply	Phase	φ	1
	Cycle	Hz	50
	Voltage	V	230
	Breaker size	A	32
Indoor unit	Air flow (Low-High)	CMM	22-28
		CFM	780-990
	External pressure	Pa	0
	Sound level (Low-High)	dB(A)	41-46
	External finish		Munsell 3.4Y 7.7/0.8
	Dimension	W : mm	1680
		D : mm	235
		H : mm	340
		W : inch	66-1/8
		D : inch	9-1/4
		H : inch	13-3/8
	Weight	kg	28
		lbs	62
	Unit drain pipe O.D.	mm	20
		inch	13/16
Outdoor unit	Air flow	CMM	60
		CFM	2,120
	Sound level at cooling	dB(A)	50
	Sound level at heating	dB(A)	54
	External finish		Ivory Munsell 5Y 7/1
	Dimension	W : mm	950
		D : mm	330+30
		H : mm	943
		W : inch	37-3/8
		D : inch	13 + 1-3/16
		H : inch	37-1/8
	Weight	kg	75
		lbs	165
Refrigerant pipe size	Gas side O.D.	mm	15.88
		inch	5/8
	Liquid side O.D.	mm	9.52
		inch	3/8
Refrigerant pipe length	Height difference	m	Max. 30
	Length	m	Max. 50

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F)

Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C ※1
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage

198~264V, 50Hz

4. Above data based on indicated voltage

Indoor unit Single phase 230V 50Hz

Outdoor unit Single phase 230V 50Hz

※1. If optional Air protect guide installed. D.B. -15°C

2-4. CEILING-SUSPENDED TYPE

Model name	Indoor unit		PCA-RP100GA	PCA-RP125GA	PCA-RP140GA
	Outdoor unit		PUHZ-P100VHA	PUHZ-P125VHA	PUHZ-P140VHA
Cooling	Capacity	Btu/h	32,100	42,000	46,400
		kW	9.4(4.9-11.2)	12.3(5.5-14.0)	13.6(5.5-15.0)
	Total input	kW	3.35	4.38	5.21
	EER		2.81	2.81	2.61
	Energy label class		C	C	D
	SHF		0.77	0.78	0.76
Heating	Capacity	Btu/h	38,200	47,800	54,600
		kW	11.2(4.5-12.5)	14.0(5.0-16.0)	16.0(5.0-18.0)
	Total input	kW	3.49	4.98	4.98
	COP		3.21	2.81	3.21
	Energy label class		C	D	C
	Booster heater	kW	-	-	-
Power supply	Phase	φ	1		
	Cycle	Hz	50		
	Voltage	V	230		
	Breaker size	A	32		40
Indoor unit	Air flow	CMM	20-21-23-25	27-30-32-34	
	(Low-Medium2-Medium1-High)	CFM	705-840-810-885	955-1060-1130-1200	
	External pressure	Pa	0	0	
	Sound level	dB(A)	40-41-43-45	41-43-45-46	42-44-46-48
	(Low-Medium2-Medium1-High)				
	External finish		White Munsell 0.70Y 8.59/0.97		
	Dimension	W : mm	1310	1620	
		D : mm	680		
		H : mm	270		
		W : inch	51-9/16	63-3/4	
		D : inch	26-3/4		
		H : inch	10-5/8		
	Weight	kg	37	43	45
		lbs	82	95	99
Unit drain pipe I.D.	mm	26			
	inch	1			
Outdoor unit	Air flow	CMM	60	100	
		CFM	2,120	3,530	
	Sound level at cooling	dB(A)	50	51	52
	Sound level at heating	dB(A)	54	55	56
	External finish		Ivory Munsell 5Y 7/1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	943	1350	
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	37-1/8	53-1/8	
	Weight	kg	75	123	
		lbs	165	271	
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 50		

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage

198~264V, 50Hz

4. Above data based on indicated voltage

Indoor unit Single phase 230V 50Hz

Outdoor unit Single phase 230V 50Hz

* If optional Air protect guide installed. D.B. -15°C

Model name	Indoor unit		PCA-RP125HA
	Outdoor unit		PUHZ-P125VHA
Cooling	Capacity	Btu/h	42,000
		kW	12.3(5.5-14.0)
	Total input	kW	4.38
	EER		2.81
	Energy label class		C
	SHF		0.78
Heating	Capacity	Btu/h	47,100
		kW	13.8(5.0-16.0)
	Total input	kW	4.30
	COP		3.21
	Energy label class		C
	Booster heater	kW	-
Power supply	Phase	φ	1
	Cycle	Hz	50
	Voltage	V	230
	Breaker size	A	25
Indoor unit	Air flow (Low-High)	CMM	30-38
		CFM	1060-1350
	External pressure	Pa	0
	Sound level (Low-High)	dB(A)	44-50
	External finish		Stainless steel
	Dimension	W : mm	1520
		D : mm	650
		H : mm	280
		W : inch	59-7/8
		D : inch	25-5/8
		H : inch	11
	Weight	kg	56
		lbs	124
	Unit drain pipe I.D.	mm	26
		inch	1
Outdoor unit	Air flow	CMM	100
		CFM	3,530
	Sound level at cooling	dB(A)	51
	Sound level at heating	dB(A)	55
	External finish		Ivory Munsell 5Y 7/1
	Dimension	W : mm	950
		D : mm	330+30
		H : mm	1350
		W : inch	37-3/8
		D : inch	13 + 1-3/16
		H : inch	53-1/8
	Weight	kg	123
		lbs	271
Refrigerant pipe size	Gas side O.D.	mm	15.88
		inch	5/8
	Liquid side O.D.	mm	9.52
		inch	3/8
Refrigerant pipe length	Height difference	m	Max. 30
	Length	m	Max. 50

NOTE: 1. Rating conditions (ISO T1)
Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)
Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)
Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C ※1
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage
198~264V, 50Hz

4. Above data based on indicated voltage
Indoor unit Single phase 230V 50Hz
Outdoor unit Single phase 230V 50Hz

※1. If optional Air protect guide installed. D.B. -15°C

2-5. FLOOR STANDING TYPE

Model name	Indoor unit		PSA-RP100GA	PSA-RP125GA	PSA-RP140GA
	Outdoor unit		PUHZ-P100VHA	PUHZ-P125VHA	PUHZ-P140VHA
Cooling	Capacity	Btu/h	32,100	42,000	46,400
		kW	9.4(4.9-11.2)	12.3(5.5-14.0)	13.6(5.5-15.0)
	Total input	kW	3.12	4.38	5.64
	EER		3.01	2.81	2.41
	Energy label class		B	C	E
	SHF		0.83	0.76	0.75
Heating	Capacity	Btu/h	38,200	47,800	54,600
		kW	11.2(4.5-12.5)	14.0(5.0-16.0)	16.0(5.0-18.0)
	Total input	kW	3.28	4.98	5.69
	COP		3.41	2.81	2.81
	Energy label class		B	D	D
	Booster heater	kW	-	-	-
Power supply	Phase	φ	1		
	Cycle	Hz	50		
	Voltage	V	230		
	Breaker size	A	32		40
Indoor unit	Air flow (Low-High)	CMM	24-31	26-33	27-35
		CFM	850-1060	920-1165	955-1240
	External pressure	Pa	0		
	Sound level (Low-High)	dB(A)	44-49	46-51	47-52
	External finish		White Munsell 0.70Y 8.59/0.97		
	Dimension	W : mm	600		
		D : mm	350		
		H : mm	1900		
		W : inch	23-5/8		
		D : inch	13-3/4		
		H : inch	74-13/16		
		Weight	kg	51	
	lbs		112		117
	Unit drain pipeO.D.	mm	20		
inch		13/16			
Outdoor unit	Air flow	CMM	60	100	
		CFM	2,120	3,530	
	Sound level at cooling	dB(A)	50	51	52
	Sound level at heating	dB(A)	54	55	56
	External finish		Ivory Munsell 5Y 7/1		
	Dimension	W : mm	950		
		D : mm	330+30		
		H : mm	943	1350	
		W : inch	37-3/8		
		D : inch	13 + 1-3/16		
		H : inch	37-1/8	53-1/8	
		Weight	kg	75	123
	lbs		165	271	
Refrigerant pipe size	Gas side O.D.	mm	15.88		
		inch	5/8		
	Liquid side O.D.	mm	9.52		
		inch	3/8		
Refrigerant pipe length	Height difference	m	Max. 30		
	Length	m	Max. 50		

NOTE: 1. Rating conditions (ISO T1)

Cooling Indoor : D.B. 27°C (80°F) W.B. 19°C (66°F) Outdoor : D.B. 35°C (95°F) W.B. 24°C (75°F)

Heating Indoor : D.B. 20°C (68°F) Outdoor : D.B. 7°C (45°F) W.B. 6°C (43°F)

Refrigerant piping length (one way) : 5m (16ft.)

2. Guaranteed operating range

		Indoor	Outdoor
Cooling	Upper limit	D.B. 35°C, W.B. 22.5°C	D.B. 46°C
	Lower limit	D.B. 19°C, W.B. 15°C	D.B. -5°C *
Heating	Upper limit	D.B. 28°C	D.B. 21°C, W.B. 15°C
	Lower limit	D.B. 17°C	D.B. -11°C, W.B. -12°C

3. Guaranteed voltage

198~264V, 50Hz

4. Above data based on indicated voltage

Indoor unit Single phase 230V 50Hz

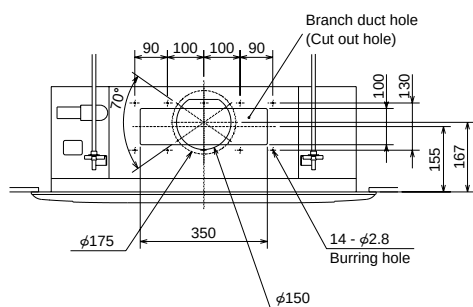
Outdoor unit Single phase 230V 50Hz

* If optional Air protect guide installed. D.B. -15°C

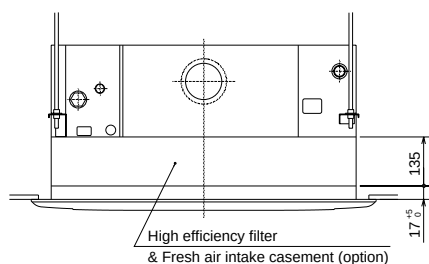
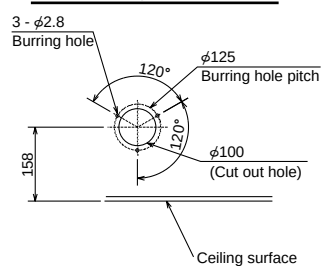
INDOOR UNIT

Unit : mm

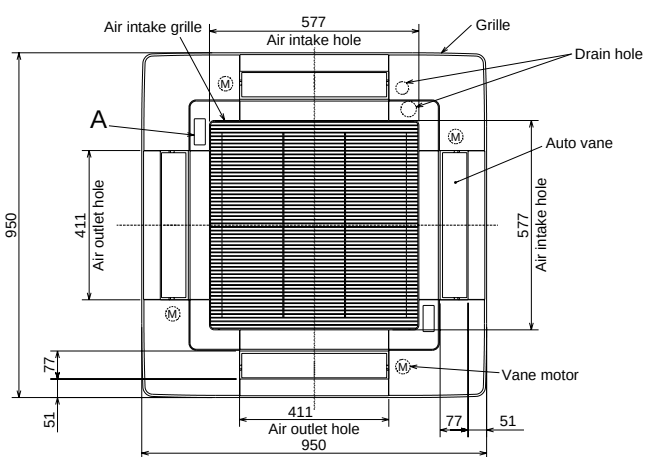
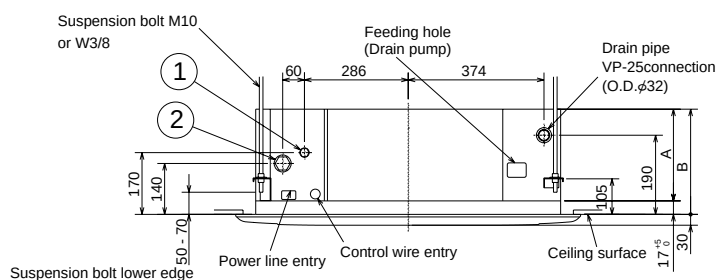
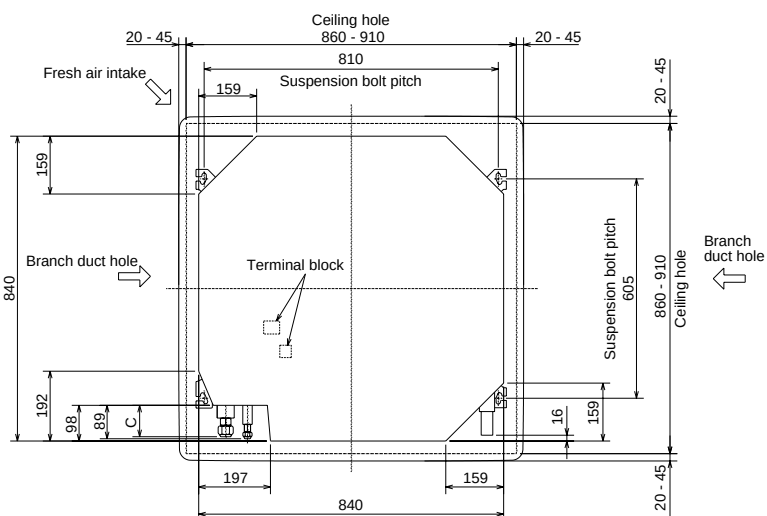
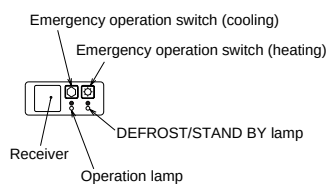
PLA-RP50AA PLA-RP60AA PLA-RP71AA
PLA-RP100AA2 PLA-RP125AA2 PLA-RP140AA2



Detail drawing of fresh air intake



A (WIRELESS PANEL)



Use the current nuts meeting the pipe size of the outdoor unit.

Available pipe size

	RP50	RP60	RP71	RP100, 125, 140
① LIQUID SIDE	φ6.35 ○	φ6.35	—	—
	φ9.52	φ9.52 ○	φ9.52 ○	φ9.52 ○
② GAS SIDE	φ12.7 ○	—	—	—
	φ15.88	φ15.88 ○	φ15.88 ○	φ15.88 ○
	—	—	—	φ19.05

○ Factory flare nut attachment to the heat-exchanger.

Models	A	B	C
PLA-RP50AA PLA-RP60,71AA	241	258	80
PLA-RP100,125,140AA2	281	298	84

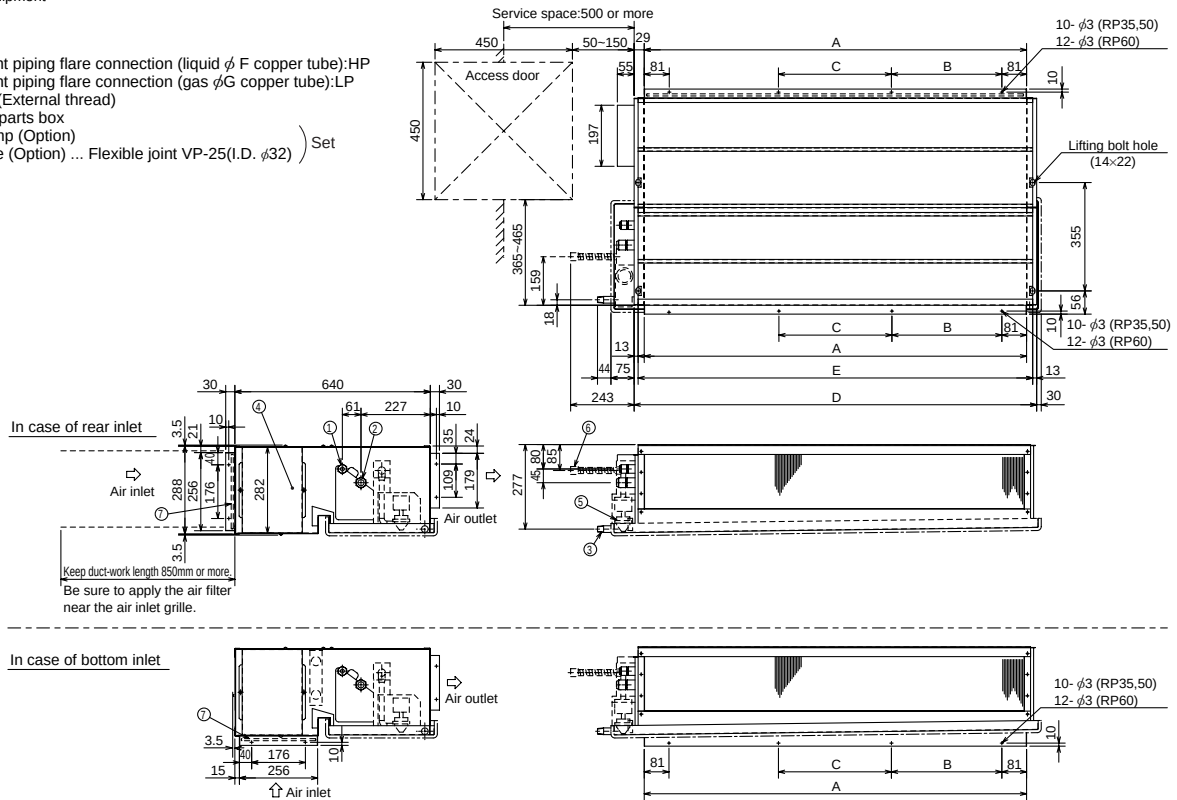
PEAD-RP50EA PEAD-RP60EA

Unit : mm

Model	A	B	C	D	E	F	G
RP50	772	305	—	830	804	R410A Outdoor unit : 6.35 * R407C Outdoor unit : 9.52	R410A Outdoor unit : 12.7 * R407C Outdoor unit : 15.88
RP60	1012	280	290	1070	1044	Outdoor unit (SUZ) : 6.35 R407C Outdoor unit : 9.52 *	15.88

* Setting at shipment

- ① Refrigerant piping flare connection (liquid ϕ F copper tube):HP
- ② Refrigerant piping flare connection (gas ϕ G copper tube):LP
- ③ Drain R1 (External thread)
- ④ Electrical parts box
- ⑤ Drain Pump (Option)
- ⑥ Drain Pipe (Option) ... Flexible joint VP-25(I.D. ϕ 32)) Set
- ⑦ Filter

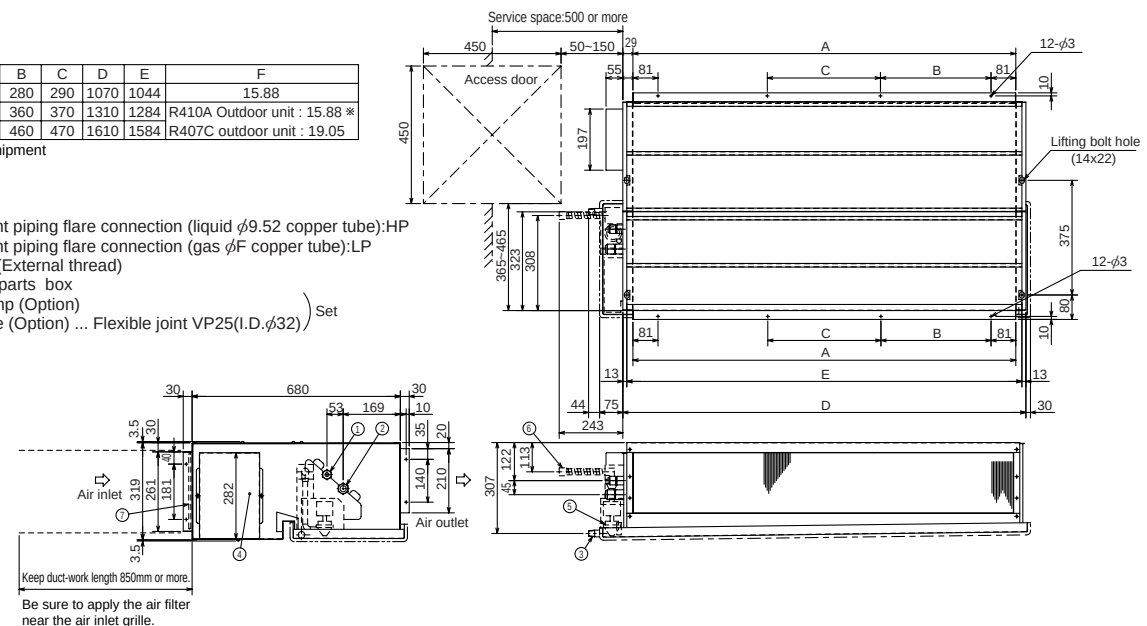


PEAD-RP71EA PEAD-RP100EA2 PEAD-RP125EA PEAD-RP140EA

Model	A	B	C	D	E	F
RP71	1012	280	290	1070	1044	15.88
RP100,125	1252	360	370	1310	1284	R410A Outdoor unit : 15.88 *
RP140	1552	460	470	1610	1584	R407C outdoor unit : 19.05

* Setting at shipment

- ① Refrigerant piping flare connection (liquid ϕ 9.52 copper tube):HP
- ② Refrigerant piping flare connection (gas ϕ F copper tube):LP
- ③ Drain R1 (External thread)
- ④ Electrical parts box
- ⑤ Drain Pump (Option)
- ⑥ Drain Pipe (Option) ... Flexible joint VP25(I.D. ϕ 32)) Set
- ⑦ Filter

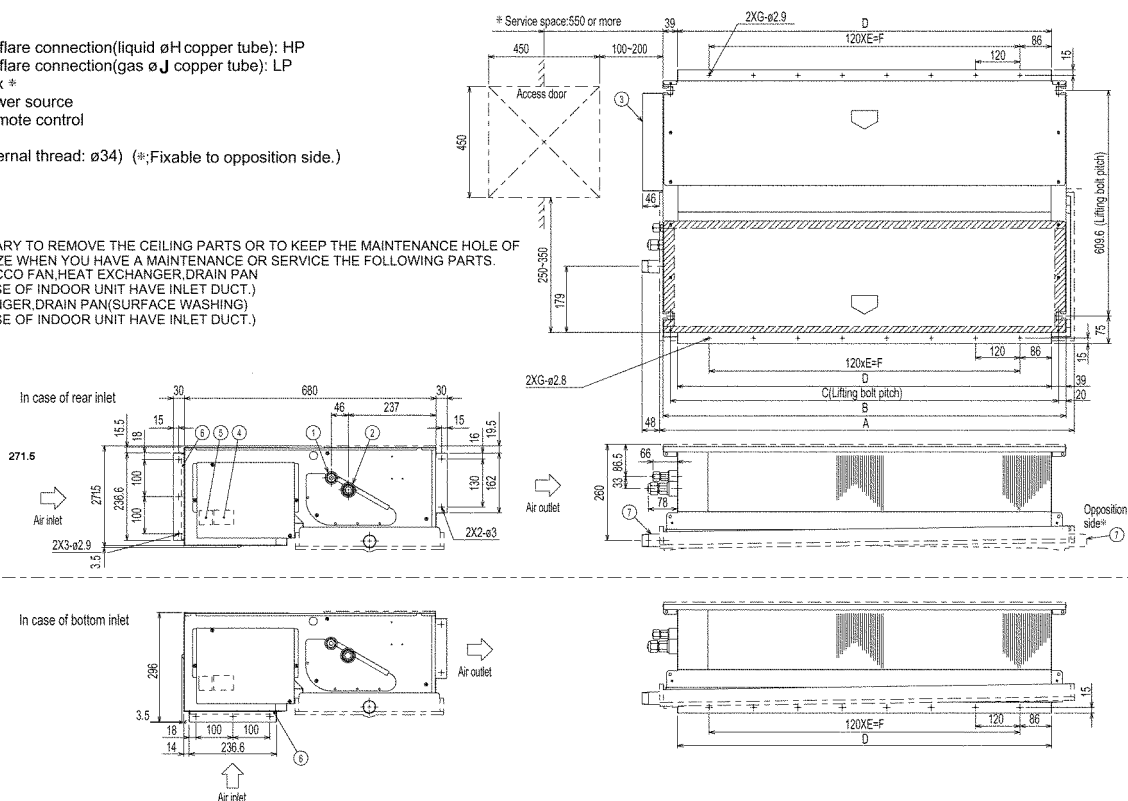


PEAD-RP60GA
PEAD-RP71GA
PEAD-RP100GA

Unit : mm

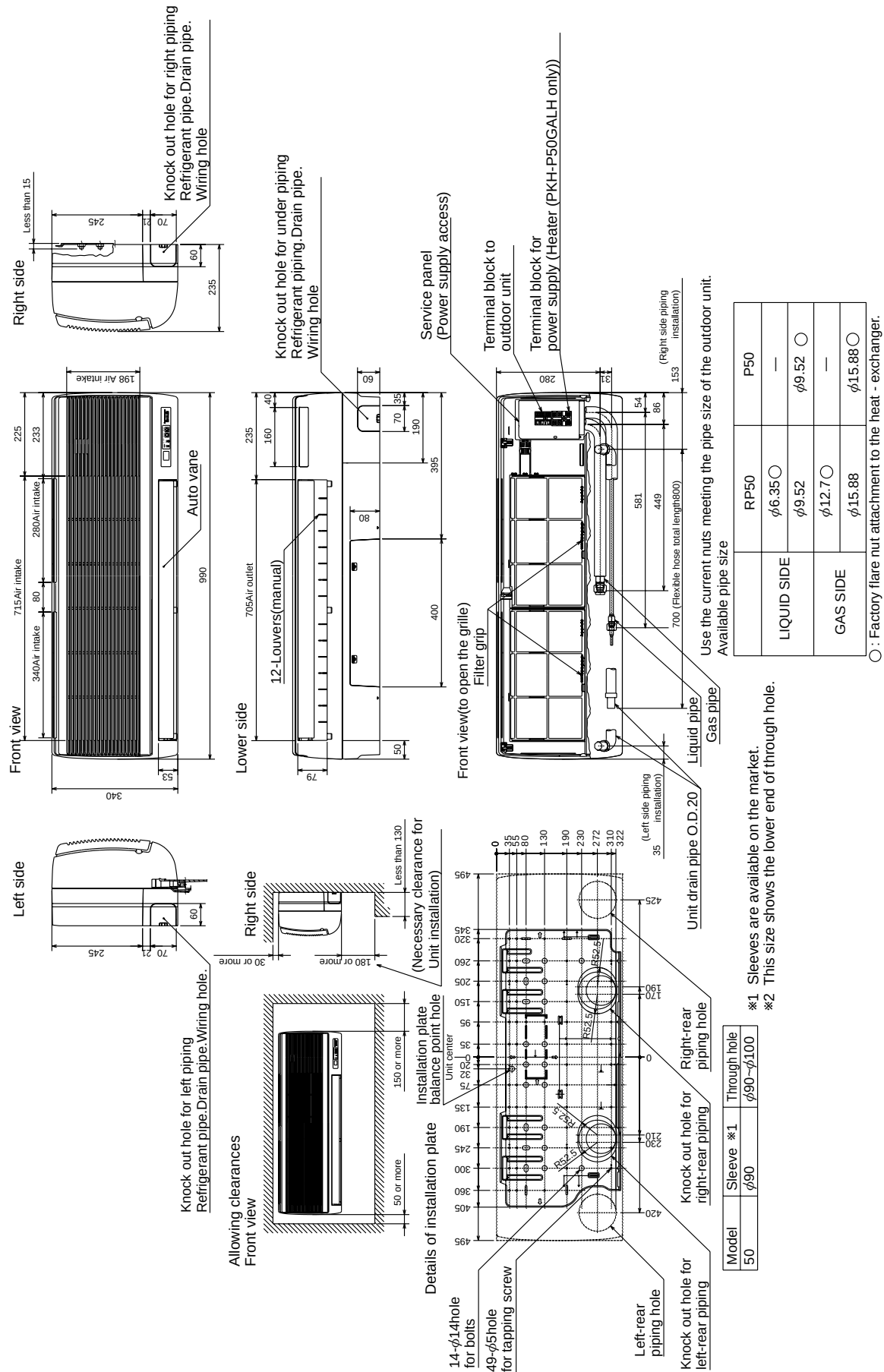
- ① Refrigerant piping flare connection(liquid øH copper tube): HP
- ② Refrigerant piping flare connection(gas øJ copper tube): LP
- ③ Electrical parts box *
- ④ Terminal bed : Power source
- ⑤ Terminal bed : Remote control
- ⑥ Filter
- ⑦ Drain pan (R1 External thread: ø34) (*:Fixable to opposition side.)

* NOTE: IT IS NECESSARY TO REMOVE THE CEILING PARTS OR TO KEEP THE MAINTENANCE HOLE OF OVER UNIT SIZE WHEN YOU HAVE A MAINTENANCE OR SERVICE THE FOLLOWING PARTS.
 SERVICE: MOTOR,SIROCCO FAN,HEAT EXCHANGER,DRAIN PAN
 (EXCHANGE) FILTER(IN CASE OF INDOOR UNIT HAVE INLET DUCT.)
 MAINTENANCE: HEAT EXCHANGER,DRAIN PAN(SURFACE WASHING)
 (WASHING) FILTER(IN CASE OF INDOOR UNIT HAVE INLET DUCT.)



Model	A	B	C	D	E	F	G	H	J
RP60	1125	1090	1050	1012	7	840	8	Outdoor unit(SUZ) : 6.35 Other outdoor unit : 9.52 *	15.88
RP71	1125	1090	1050	1012	7	840	8	9.52	15.88
RP100	1365	1330	1290	1252	9	1080	10	9.52	R410A Outdoor unit : 15.88 * R407C Outdoor unit : 19.05

* Setting at shipment



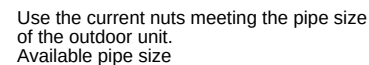
--

Unit : mm



--

--



	RP100	P100
LIQUID SIDE	ø9.52 ○	ø9.52 ○
GAS SIDE	ø15.88 ○	—
	ø19.05	ø19.05 ○

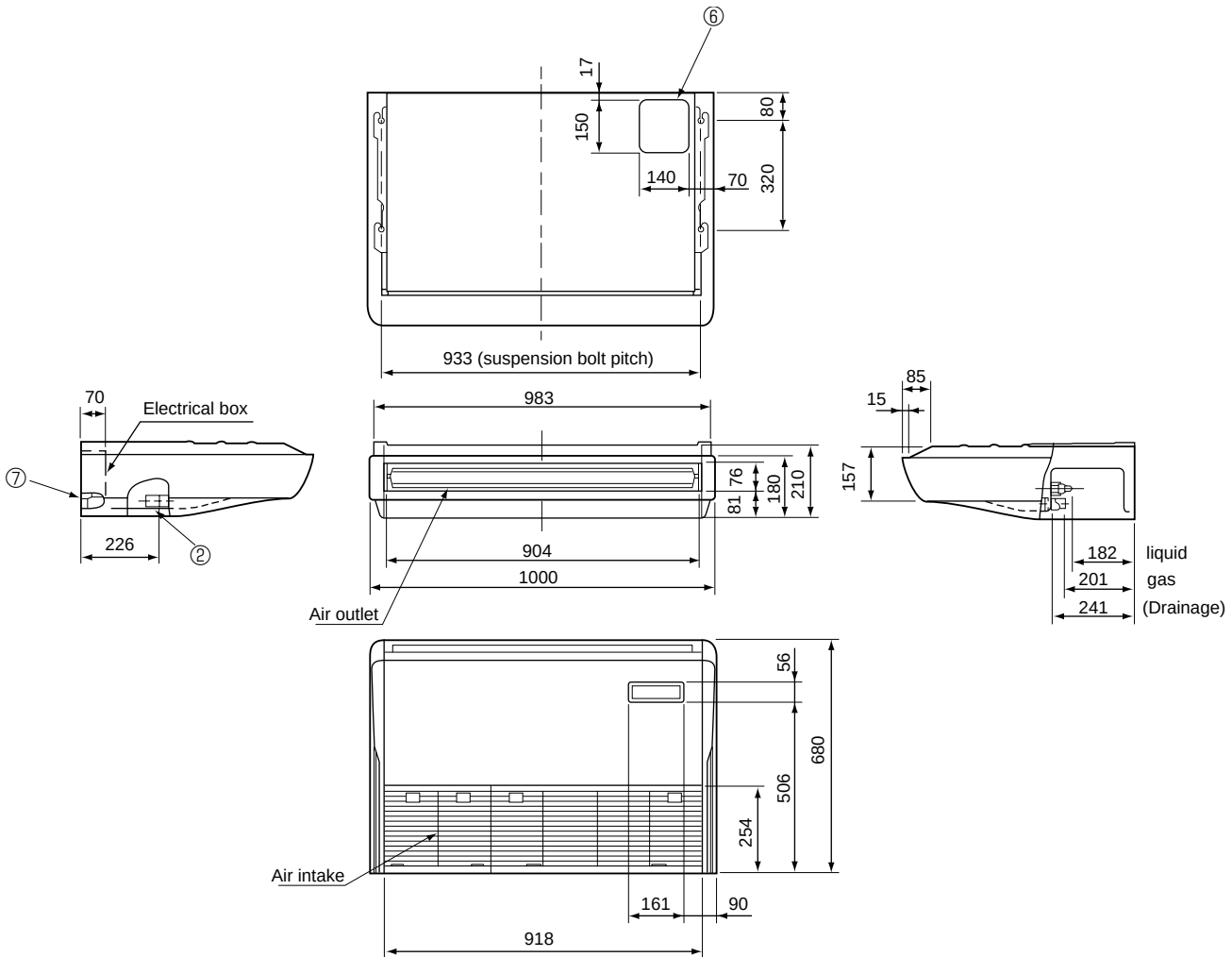
○ : Factory flare nut attachment to the heat-exchanger.

PCA-RP50GA

Unit : mm

NOTES:

1. Use M10 or W3/8 screws for anchor bolt.
2. When optional drain lift-up mechanism is installed, always provide upward piping for refrigerant piping.



- ① Drainage pipe connection (26mm I.D.)
- ② Drainage pipe connection (for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement

Use the current nuts meeting the pipe size of the outdoor unit.

Available pipe size

	RP50	P50
⑤ LIQUID SIDE	φ6.35 ○	—
	φ9.52	φ9.52 ○
④ GAS SIDE	φ12.7 ○	—
	φ15.88	φ15.88 ○

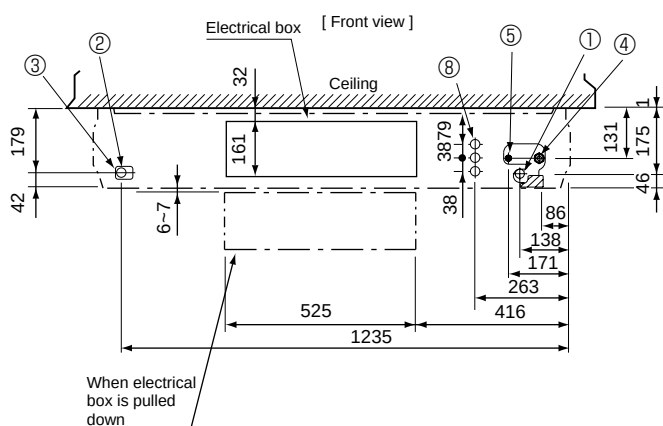
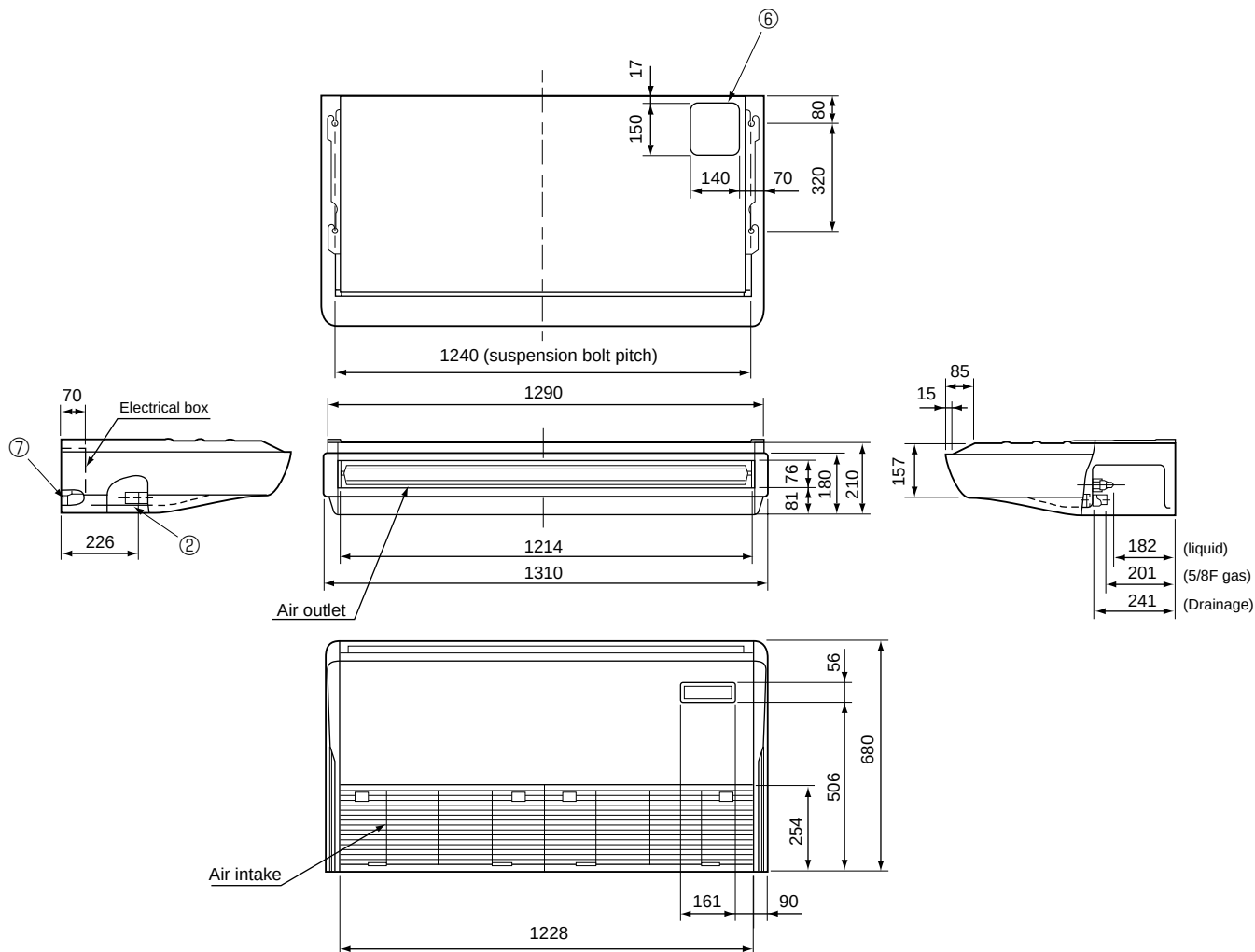
○ : Factory flare nut attachment to the heat-exchanger.

PCA-RP60GA
PCA-RP71GA

Unit : mm

NOTES:

1. Use M10 or W3/8 screws for anchor bolt.
2. When optional drain lift-up mechanism is installed, always provide upward piping for refrigerant piping.



- ① Drainage pipe connection (26mm I.D.)
- ② Drainage pipe connection (for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement

Use the current nuts meeting the pipe size of the outdoor unit.

Available pipe size

	RP60	RP71,P60,P71
⑤ LIQUID SIDE	φ6.35	—
	φ9.52 ○	φ9.52 ○
④ GAS SIDE	—	—
	φ15.88 ○	φ15.88 ○
	—	—

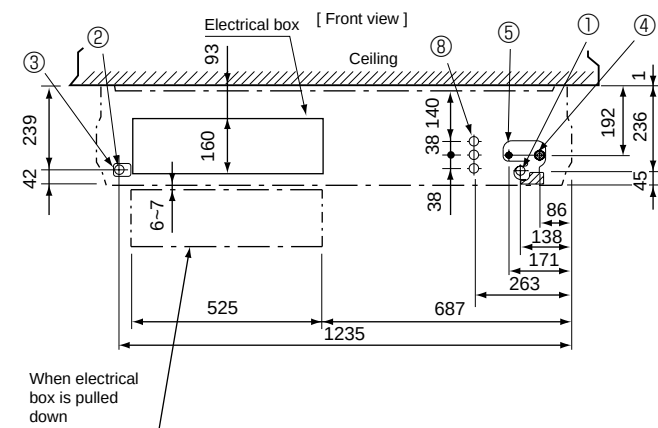
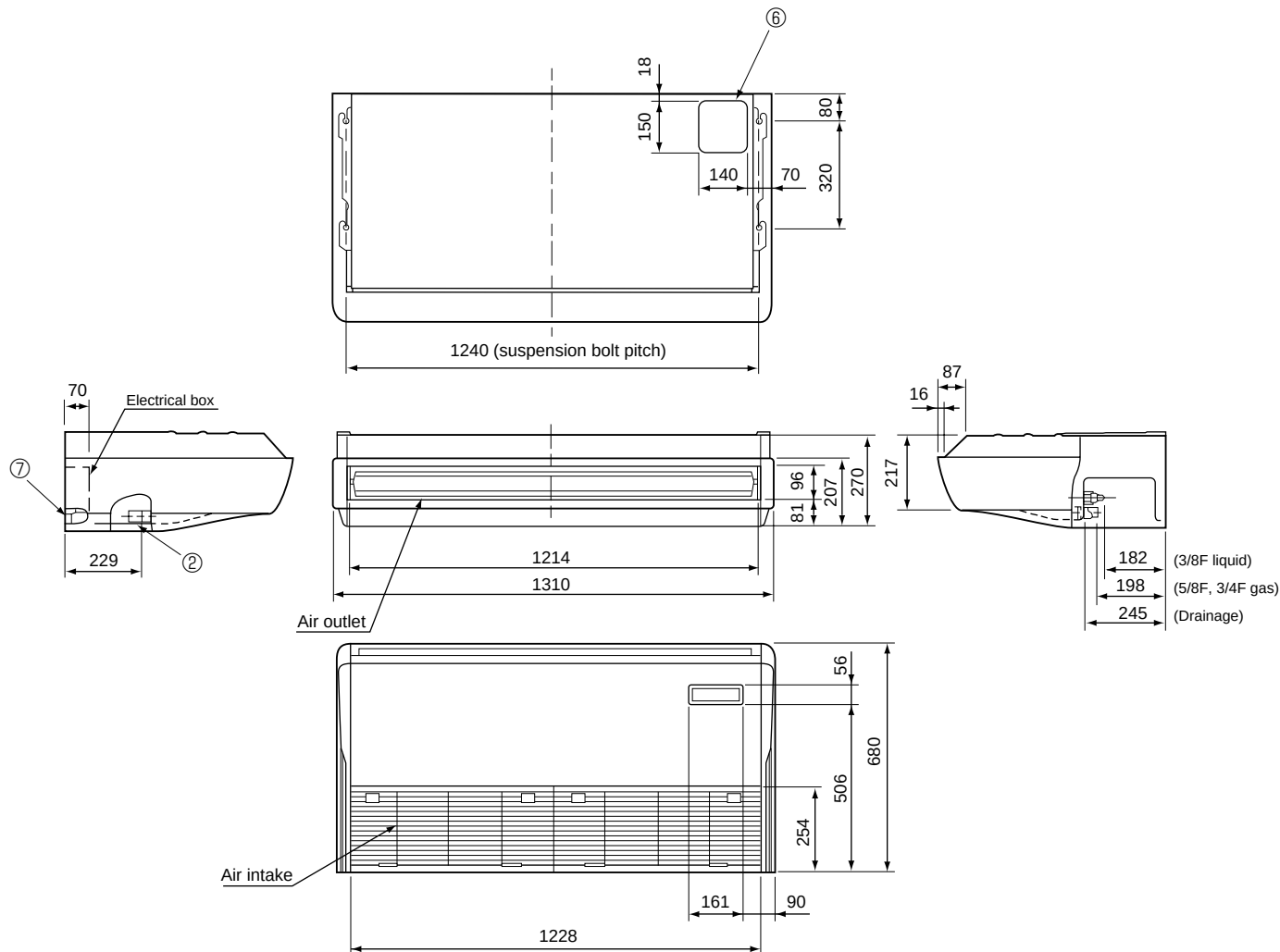
○ : Factory flare nut attachment to the heat-exchanger.

PCA-RP100GA

Unit : mm

NOTES:

1. Use M10 or W3/8 screws for anchor bolt.
2. When optional drain lift-up mechanism is installed, always provide upward piping for refrigerant piping.



- ① Drainage pipe connection (26mm I.D.)
- ② Drainage pipe connection (for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement

Use the current nuts meeting the pipe size of the outdoor unit.

Available pipe size

	RP100	P100
⑤ LIQUID SIDE	—	—
	φ9.52 ○	φ9.52 ○
④ GAS SIDE	—	—
	φ15.88 ○	—
	φ19.05	φ19.05 ○

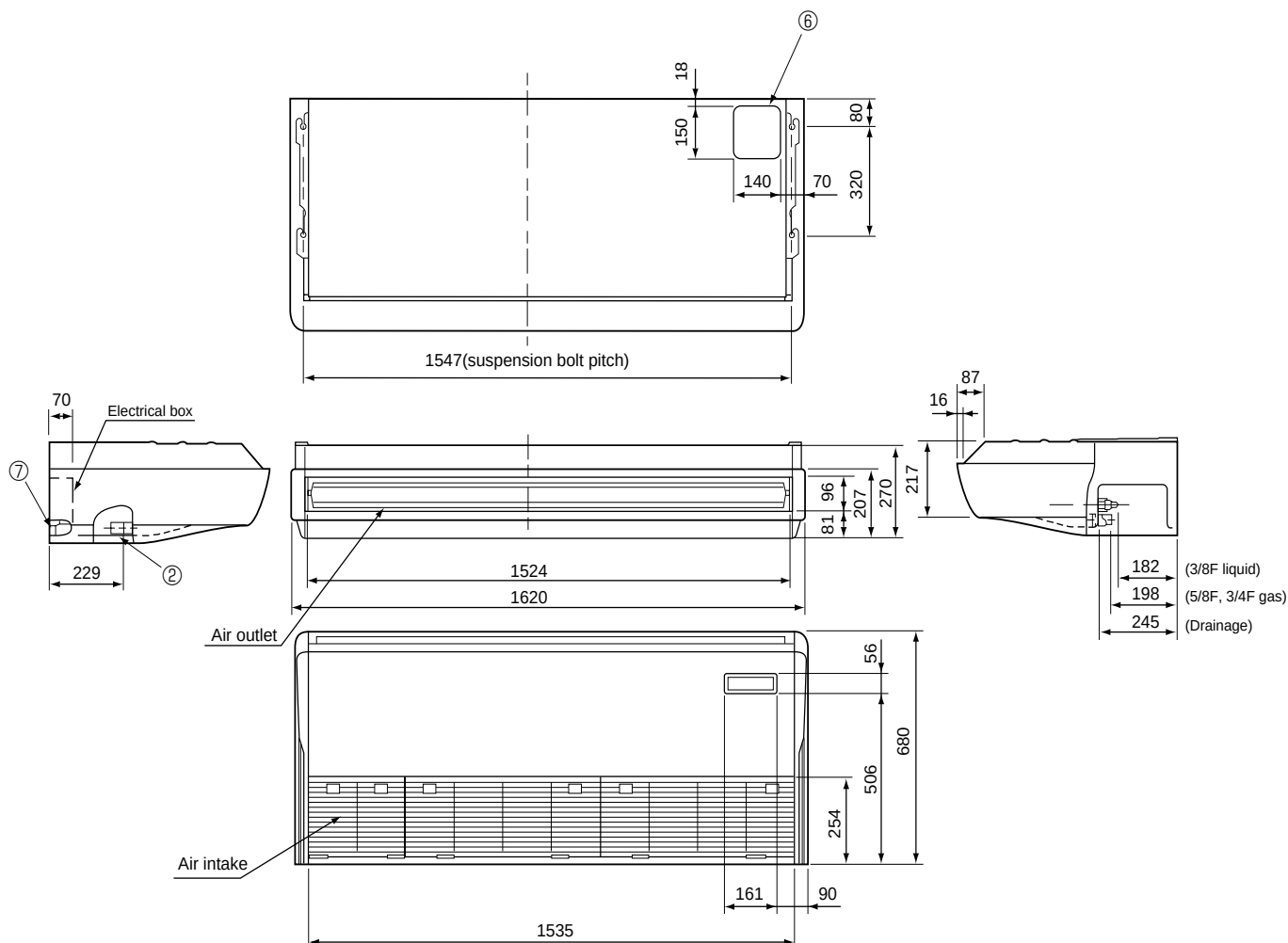
○ :Factory flare nut attachment to the heat-exchanger.

PCA-RP125GA
PCA-RP140GA

Unit : mm

NOTES:

1. Use M10 or W3/8 screws for anchor bolt.
2. When optional drain lift-up mechanism is installed, always provide upward piping for refrigerant piping.



- ① Drainage pipe connection (26mm I.D.)
- ② Drainage pipe connection (for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement

Use the current nuts meeting the pipe size of the outdoor unit.

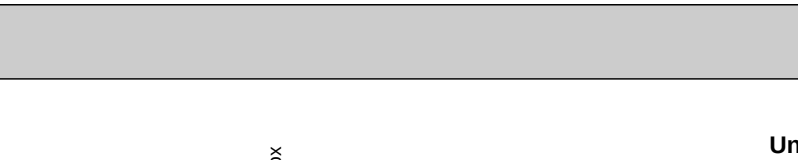
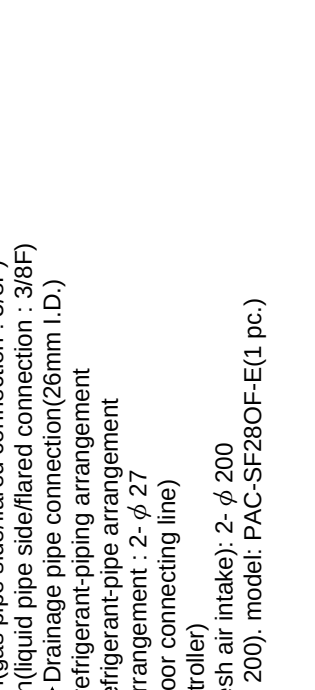
Available pipe size

	RP125,140	P125,140
⑤ LIQUID SIDE	—	—
	φ9.52 ○	φ9.52 ○
④ GAS SIDE	—	—
	φ15.88 ○	—
	φ19.05	φ19.05 ○

○ :Factory flare nut attachment to the heat-exchanger.

--

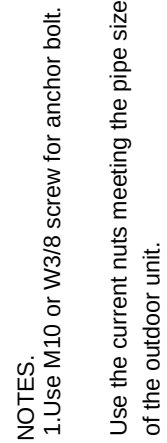
- RP71HA



1401

- ① Refrigerant-pipe connection(gas pipe side/flared connection : 5/8F, 3/4F)
- ② Refrigerant-pipe connection(liquid pipe side/flared connection : 3/8F)
- ③ Flexible hose(accessory) → Drainage pipe connection(26mm I.D.)
- ④ Knock out hole for behind refrigerant-piping arrangement
- ⑤ Knock out hole for upper refrigerant-pipe arrangement
- ⑥ Knock out hole for wiring arrangement : 2- ϕ 27
- ⑦ Terminal block(indoor/outdoor connecting line)
- ⑧ Terminal block(remote controller)
- ⑨ Knock out hole (duct for fresh air intake) : 2- ϕ 200

Option parts:duct flange(ϕ 200), model: PAC-SF28OF-E(1 pc.)



O : Factory flare nut attachment to the heat-exchanger

Available pipe size	RP125
② LIQUID SIDE	ϕ 9.52 O
① GAS SIDE	ϕ 15.88 O
	ϕ 19.05

NOTES.

- NOTES:
1. Use M10 or W3/8 screw for anchor bolt.

Use the current nuts meeting the pipe size of the outdoor unit.

--

Unit : mm



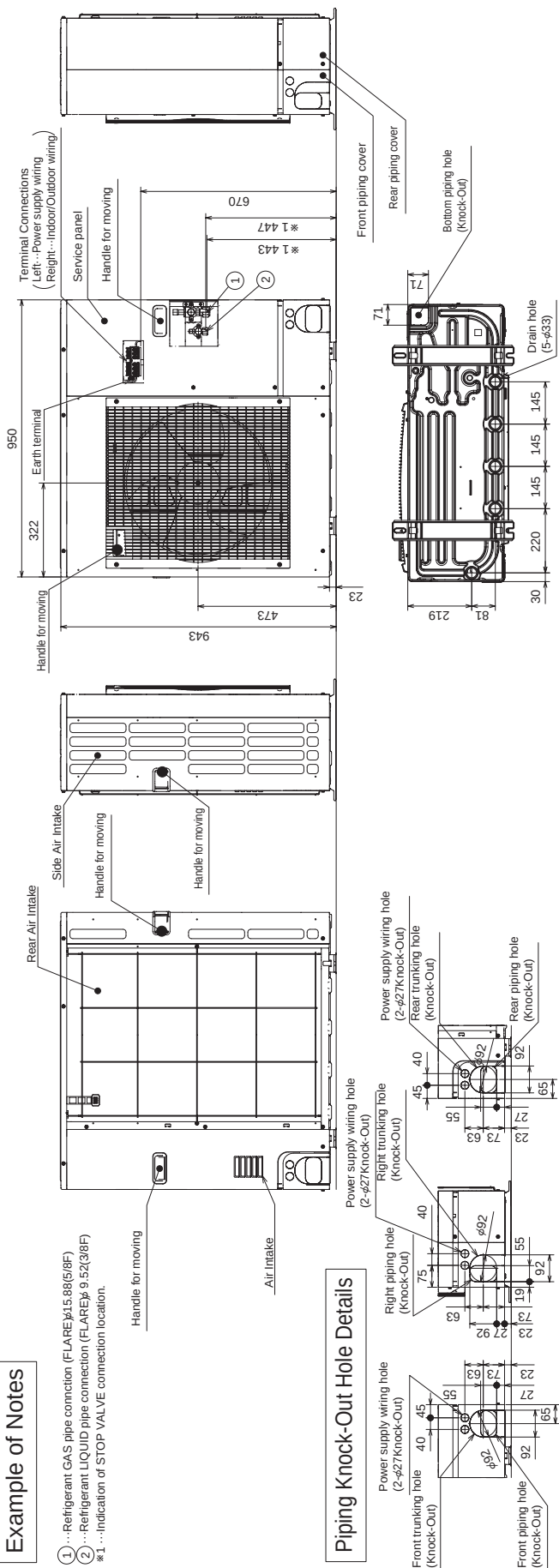
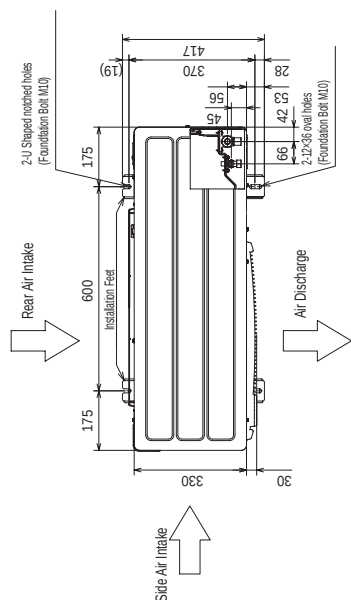
--

→ A



OUTDOOR UNIT PUHZ-P100VHA

Unit : mm

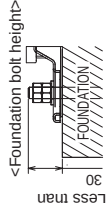


4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.

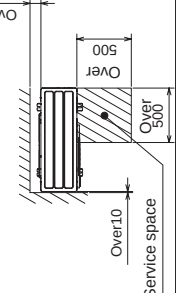
3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts (Bolts and washers must be purchased locally.)



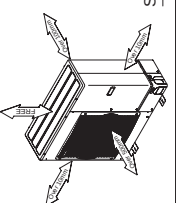
2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



1 FREE SPACE (Around the unit)

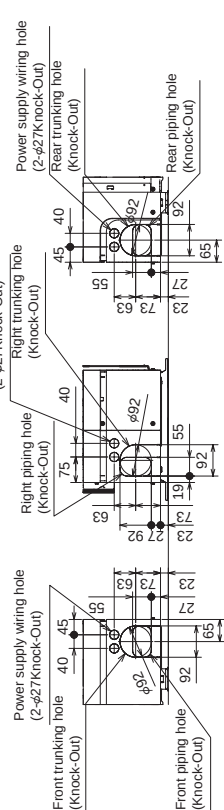
The diagram below shows a basic example.



Example of Notes

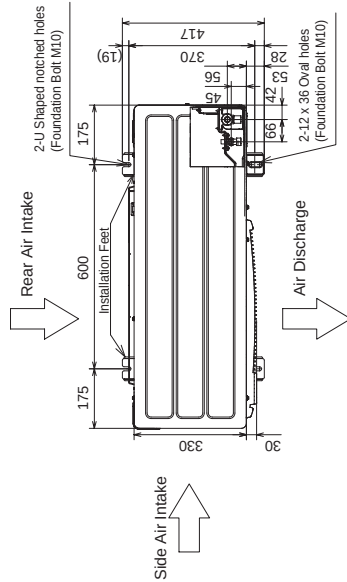
① ...Refrigerant GAS pipe connection (FLARE) ϕ 15.88(5/8F)
 ② ...Refrigerant LIQUID pipe connection (FLARE) ϕ 9.52(3/8F)
 *1 ...Indication of STOP VALVE connection location.

Piping Knock-Out Hole Details



PUHZ-P125VHA PUHZ-P140VHA

Unit : mm

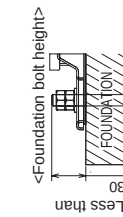


4 PIPING-WIRING DIRECTIONS

Piping and wiring connections can be made from 4 directions: FRONT, Right, Rear and Below.

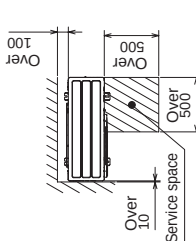
3 FOUNDATION BOLTS

Please secure the unit firmly with 4 foundation (M10) bolts. (Bolts and washers must be purchased locally).



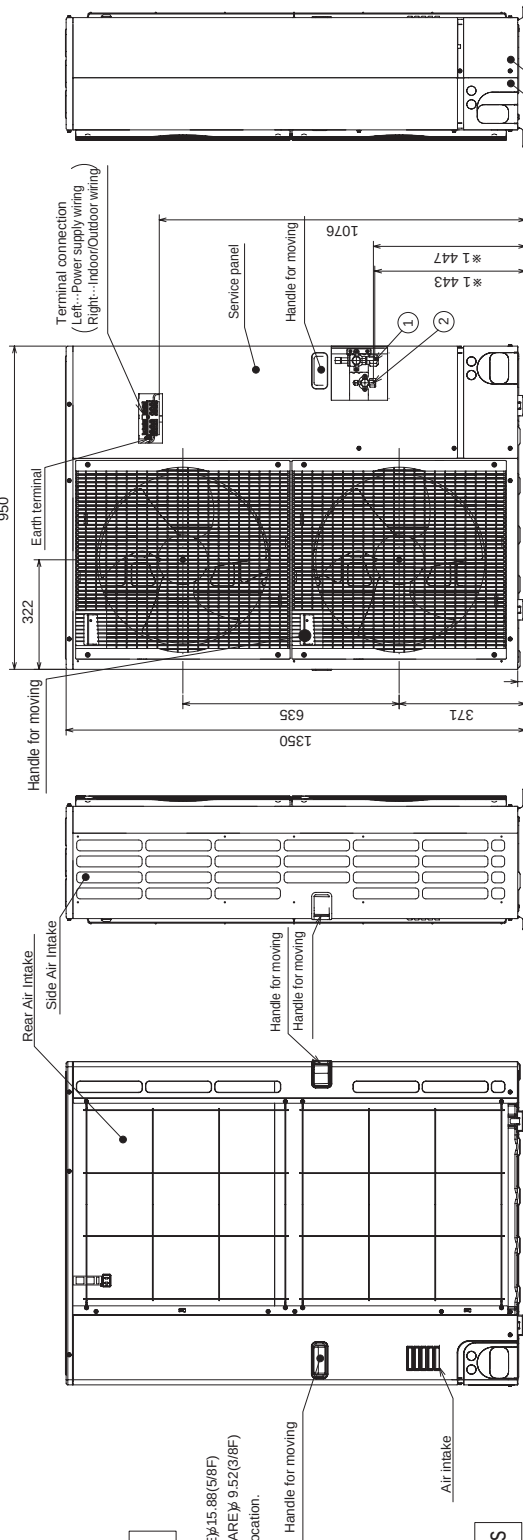
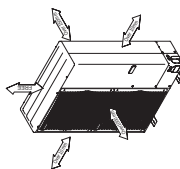
2 SERVICE SPACE

Dimensions of space needed for service access are shown in the below diagram.



1 FREE SPACE (Around the unit)

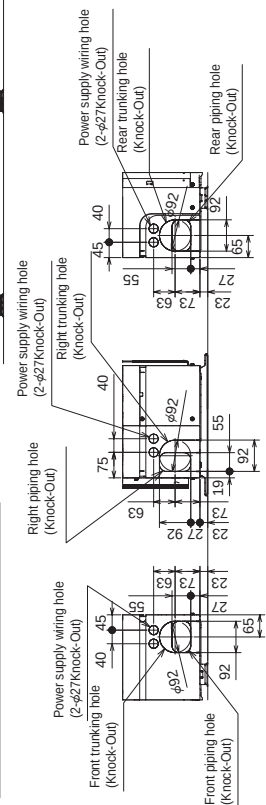
The diagram below shows a basic example. Explanation of particular details are given in the installation manuals etc.



Example of Notes

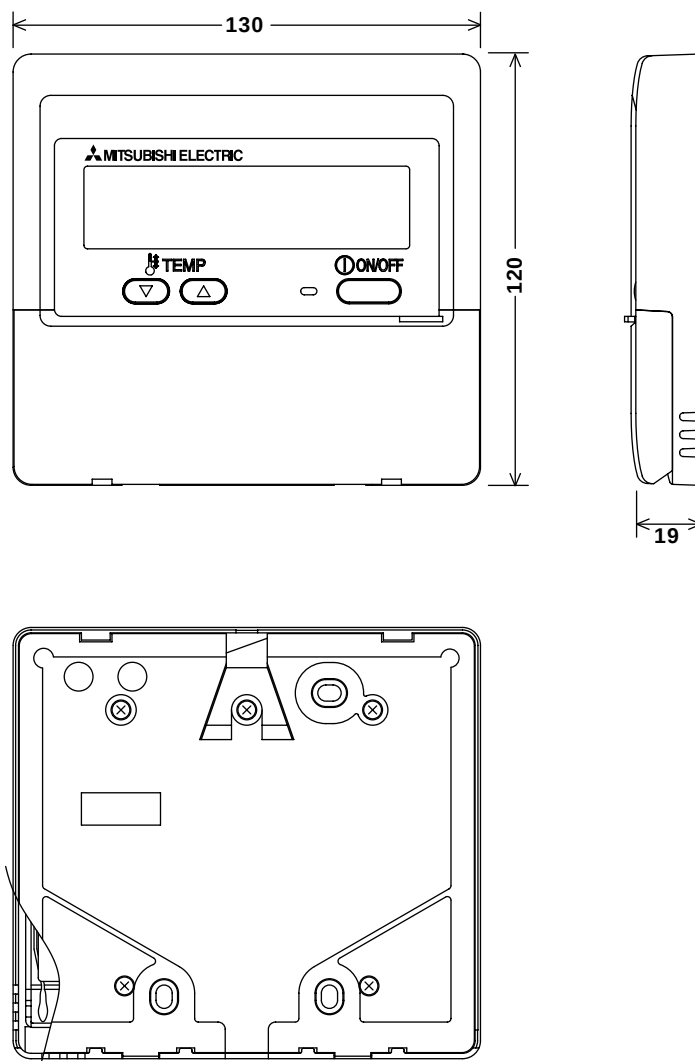
- ① ... Refrigerant GAS pipe connection (FLARE)φ15.88(5/8F)
- ② ... Refrigerant LIQUID pipe connection (FLARE)φ 9.52(3/8F)
- *1 ... Indication of STOP VALVE connection location.

Piping Knock-Out Hole Details



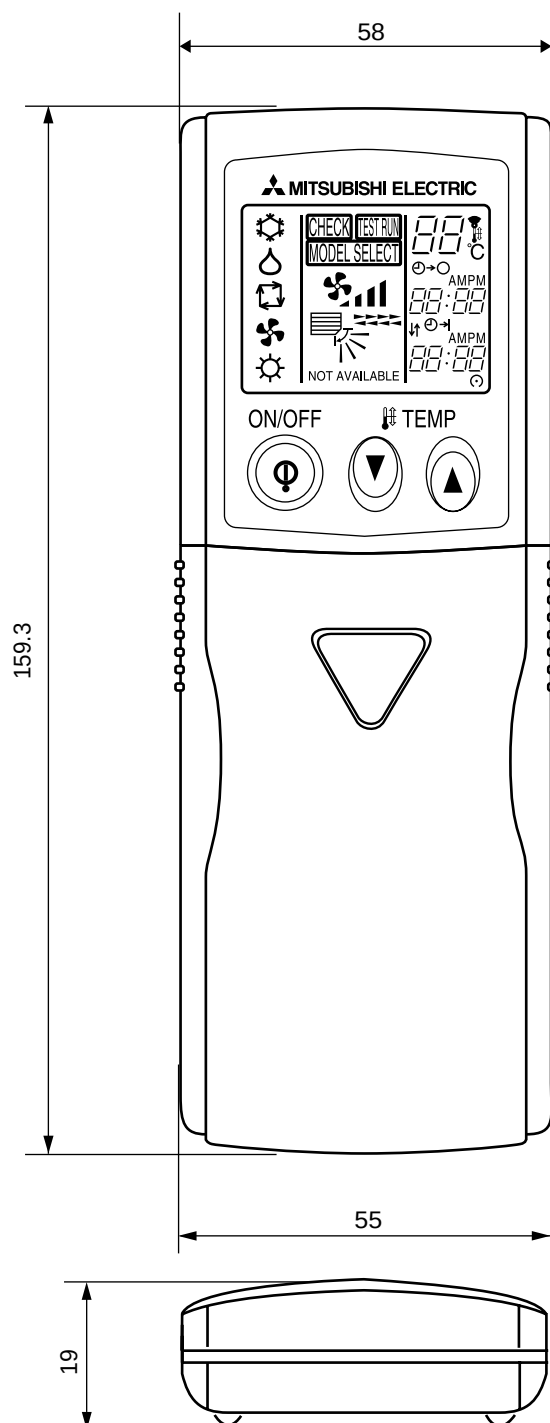
WIRED REMOTE CONTROLLER

Unit : mm



WIRELESS REMOTE CONTROLLER

Unit : mm



PLA-RP50AA PLA-RP60AA PLA-RP71AA

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	MF	FAN MOTOR	W.B	WIRELESS REMOTE CONTROLLER BOARD
I.B	INDOOR CONTROLLER BOARD	MV	VANE MOTOR	RU	RECEIVING UNIT
FUSE	FUSE(T6.3AL250V)	H2	DEW PREVENTION HEATER	BZ	BUZZER
ZNR	VARISTOR	DP	DRAIN-UP MACHINE	LED1	LED(RUN INDICATOR)
BCR	FAN CONTROL ELEMENT	DS	DRAIN SENSOR	LED2	LED(HOT ADJUST)
CN2L	CONNECTOR(LOSSNAY)	TB2	TERMINAL BLOCK (INDOOR UNIT POWER(OPTION))	SW1	SWITCH(HEATING ON/OFF)
CN32	CONNECTOR(REMOTE SWITCH)	TB4	TERMINAL BLOCK (INDOOR/ OUTDOOR CONNECTING LINE)	SW2	SWITCH(COOLING ON/OFF)
CN41	CONNECTOR(HA TERMINAL-A)	TB5, TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)		
CN51	CONNECTOR(CENTRALLY CONTROL)	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ,25°C/5.4kΩ DETECT)		
LED1	POWER SUPPLY(I.B)	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ,25°C/5.4kΩ DETECT)		
LED2	POWER SUPPLY(I.B)	TH5	COND./EVA. TEMP. THERMISTOR (0°C/15kΩ,25°C/5.4kΩ DETECT)		
LED3	TRANSMISSION(INDOOR-OUTDOOR)				
X1	RELAY(DRAIN PUMP)				
X4	RELAY(FAN MOTOR)				
SW1	SWITCH(MODEL SELECTION)※ See table 1				
SW2	SWITCH(CAPACITY CORD)※ See table 2				
SWE	CONNECTOR(EMERGENCY OPERATION)				
C	CAPACITOR(FAN MOTOR)	R.B	WIRED REMOTE CONTROLLER BOARD		

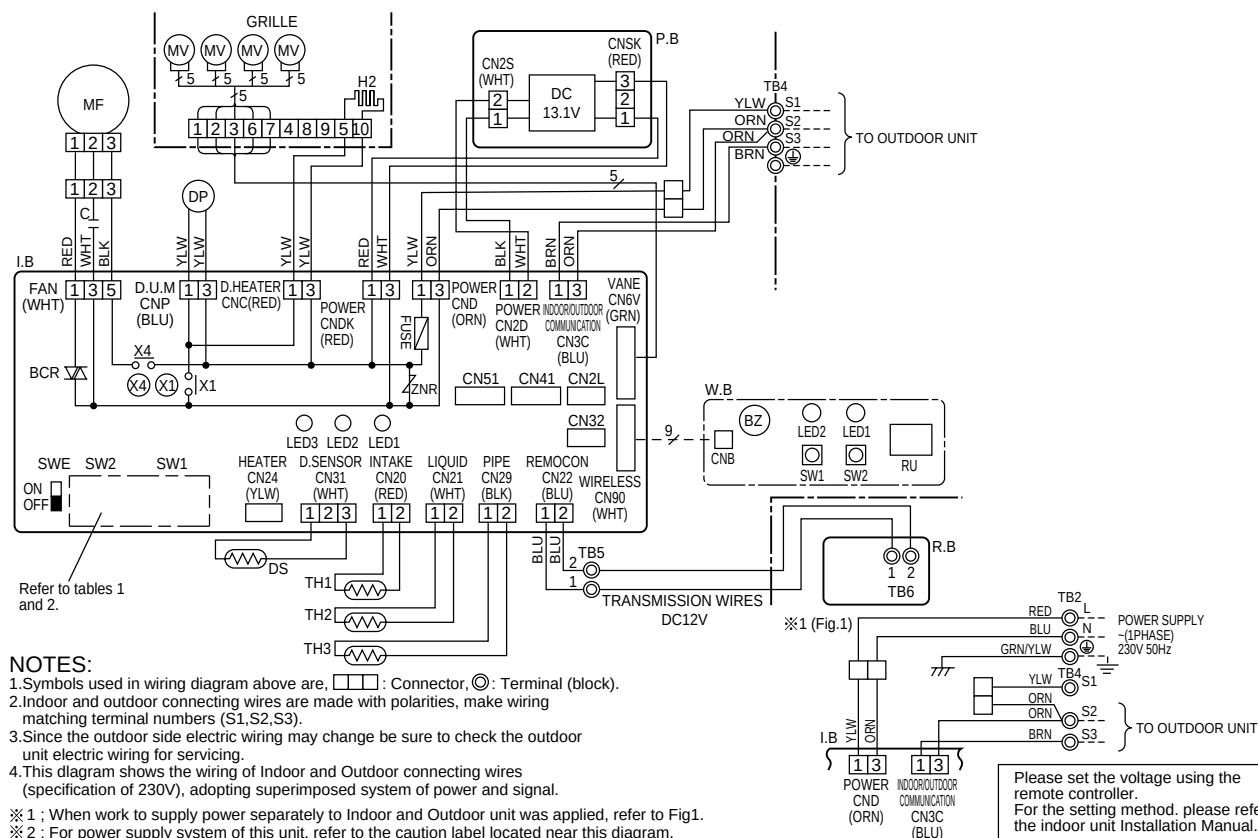


Table 1

MODELS	Service board
PLA-RP. AA	ON OFF

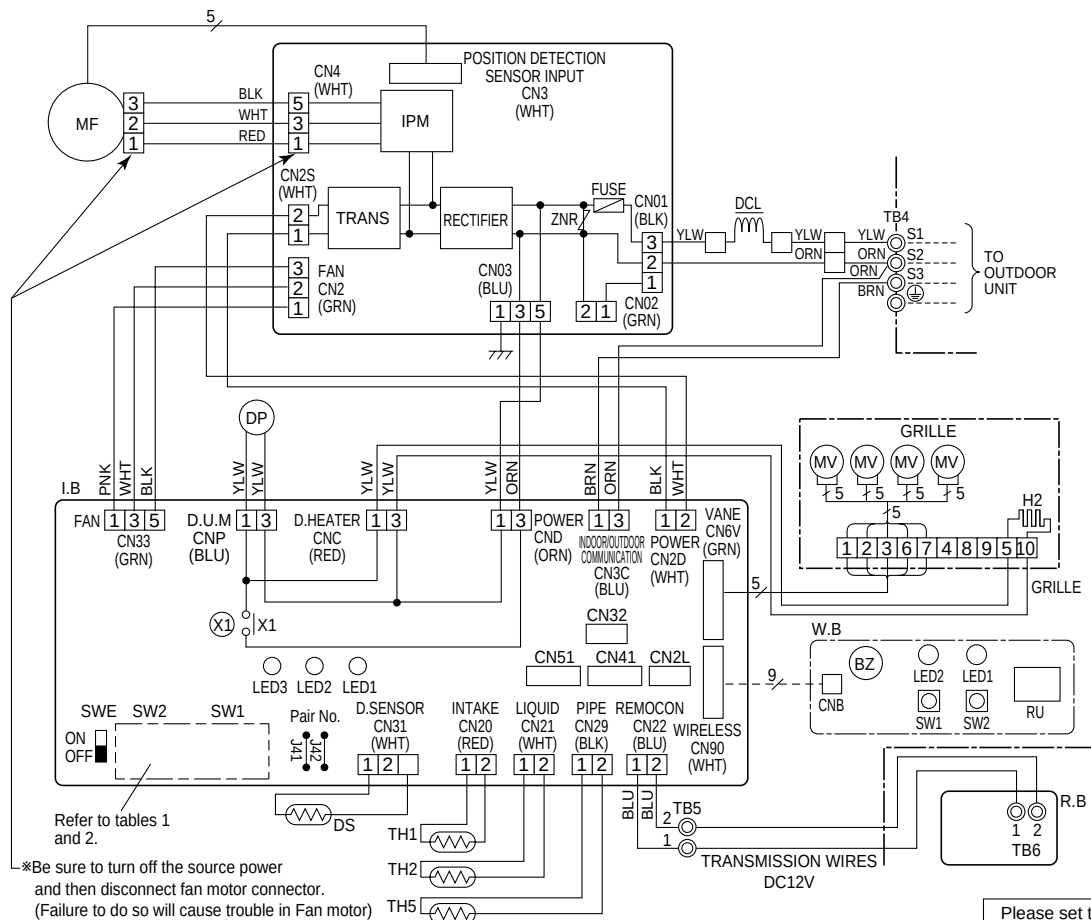
Table 2

MODELS	Service board
PLA-RP50AA	ON OFF
PLA-RP60AA	ON OFF
PLA-RP71AA	ON OFF

PLA-RP100AA2 PLA-RP125AA2 PLA-RP140AA2

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	MV	VANE MOTOR	W.B	WIRELESS REMOTE CONTROLLER BOARD
FUSE	FUSE(T5AL250V)	H2	DEW PREVENTION HEATER	RU	RECEIVING UNIT
ZNR	VARISTOR	DP	DRAIN-UP MACHINE	BZ	BUZZER
IPM	POWER MODULE	DS	DRAIN SENSOR	LED1	LED(RUN INDICATOR)
I.B	INDOOR CONTROLLER BOARD	TB2	TERMINAL BLOCK (Indoor unit Power (option))	LED2	LED(HOT ADJUST)
CN2L	CONNECTOR(LOSSNAY)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)	SW1	SWITCH(HEATING ON/OFF)
CN32	CONNECTOR(REMOTE SWITCH)	TB5, TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)	SW2	SWITCH(COOLING ON/OFF)
CN41	CONNECTOR(HA TERMINAL-A)				
CN51	CONNECTOR(CENTRALLY CONTROL)				
LED1	POWER SUPPLY(I.B)	DCL	REACTOR		
LED2	POWER SUPPLY(I.B)	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ,25°C/5.4kΩ DETECT)		
LED3	TRANSMISSION(INDOOR-OUTDOOR)	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ,25°C/5.4kΩ DETECT)		
X1	RELAY(DRAIN PUMP)	TH5	COND./EVA. TEMP. THERMISTOR (0°C/15kΩ,25°C/5.4kΩ DETECT)		
SW1	SWITCH(MODEL SELECTION)*See table 1				
SW2	SWITCH(CAPACITY CORD)*See table 2				
SWE	CONNECTOR(EMERGENCY OPERATION)				
MF	FAN MOTOR	R.B	WIRED REMOTE CONTROLLER BOARD		



- NOTES: 1.Symbols used in wiring diagram above are, : Connector, : Terminal (block).
- 2.Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1,S2,S3).
- 3.Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
- 4.This diagram shows the wiring of indoor and outdoor connecting wires. (specification of 230V), adopting superimposed system of power and signal.
- *1 ; When work to supply power separately to indoor and outdoor unit was applied, refer to Fig1.
- *2 ; For power supply system of this unit, refer to the caution label located near this diagram.

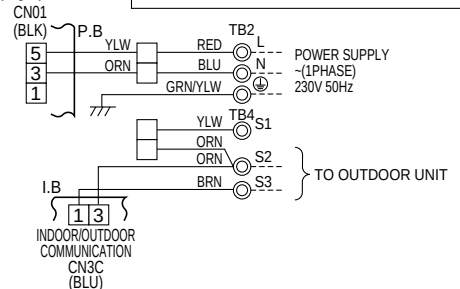
(Table 1) SW1 (MODEL SELECTION)

SW1
Manufacture/Service
1 2 3 4 5 ON OFF

(Table 2) SW2 (CAPACITY CORD)

SW2			
MODELS	Manufacture/Service	MODELS	Manufacture/Service
PLA-RP100AA2	1 2 3 4 5 ON OFF	PLA-RP140AA2	1 2 3 4 5 ON OFF
PLA-RP125AA2	1 2 3 4 5 ON OFF		

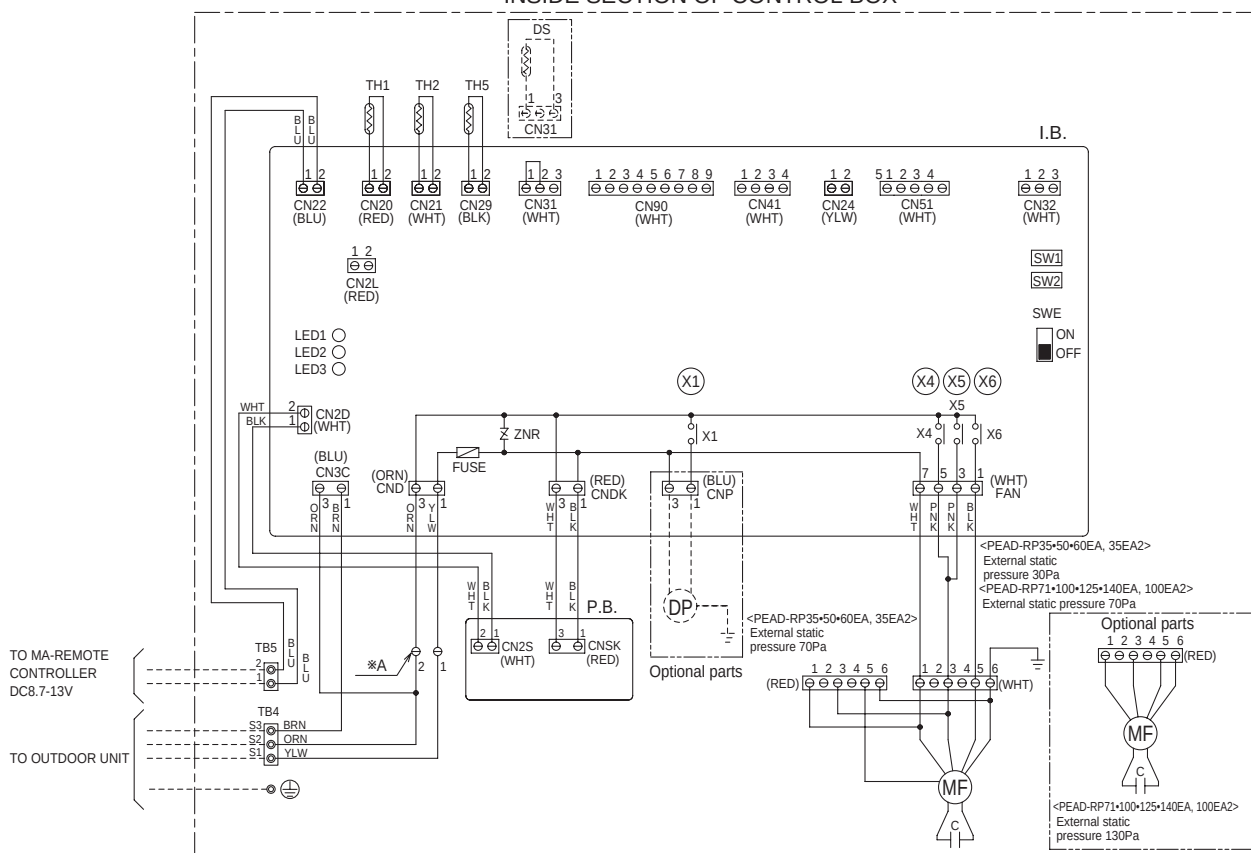
*1 (Fig.1)



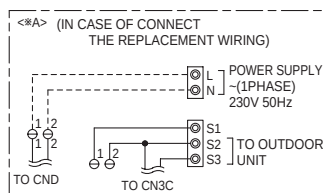
PEAD-RP50EA PEAD-RP60EA PEAD-RP71EA
PEAD-RP100EA2 PEAD-RP125EA PEAD-RP140EA

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B.	INDOOR CONTROLLER BOARD	SW2	SWITCH(CAPACITY CORD)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
FUSE	FUSE(T6.3AL250V)	SWE	SWITCH(EMERGENCY OPERATION)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER)
ZNR	VARIATOR	X1	RELAY(DRAIN PUMP)	TH1	INTAKE AIR TEMP. THERMISTOR (0°C /15k Ω , 25°C /5.4k Ω DETECT)
CN2L	CONNECTOR(LOSSNAY)	X4	RELAY(FAN MOTOR)	TH2	PIPE TEMP. THERMISTOR/LIQUID (0°C /15k Ω , 25°C /5.4k Ω DETECT)
CN24	CONNECTOR(HEATER)	X5	RELAY(FAN MOTOR)	TH5	COND./EVA. TEMP. THERMISTOR (0°C /15k Ω , 25°C /5.4k Ω DETECT)
CN32	CONNECTOR(REMOTE SWITCH)	X6	RELAY(FAN MOTOR)		
CN41	CONNECTOR(HA TERMINAL-A)	P.B.	INDOOR POWER BOARD		
CN51	CONNECTOR(CENTRALLY CONTROL)	DP	DRAIN PUMP		
CN90	CONNECTOR(WIRELESS)	DS	DRAIN SENSOR		
LED1	POWER SUPPLY(I.B.)	C	CAPACITOR(FAN MOTOR)		
LED2	POWER SUPPLY(REMOTE CONTROLLER)	MF	FAN MOTOR		
LED3	TRANSMISSION(INDOOR•OUTDOOR)				
SW1	SWITCH(MODEL SELECTION)				

INSIDE SECTION OF CONTROL BOX



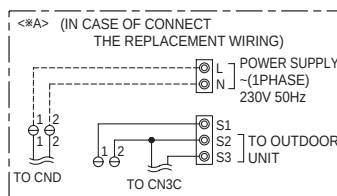
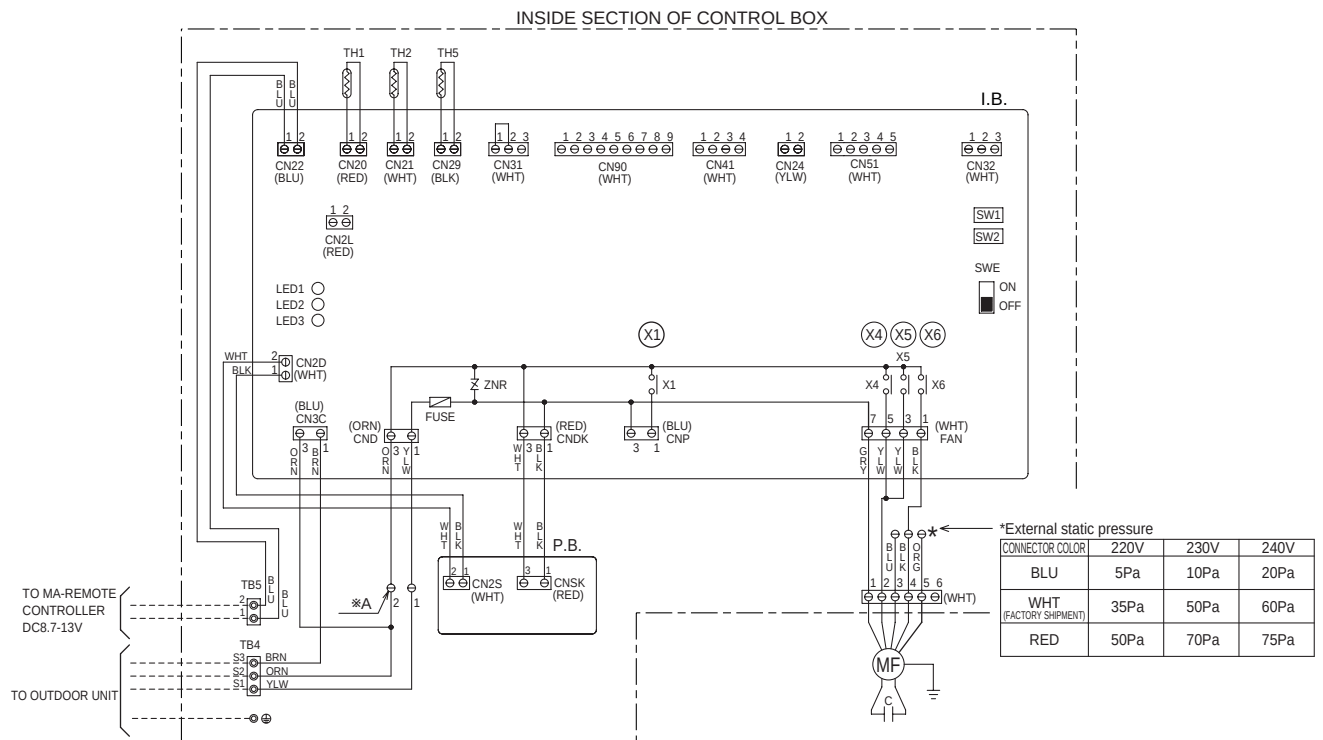
MODELS	SW1 Model selection switch	SW2 Capacity cord switch
35EA(2)		
50EA		
60EA		
71EA		
100EA(2)		
125EA		
140EA		



- NOTE 1. SINCE THE OUTDOOR SIDE ELECTRIC WIRING MAY CHANGE BE SURE TO CHECK THE OUTDOOR UNIT ELECTRIC WIRING FOR SERVICING.
 2. INDOOR AND OUTDOOR CONNECTING WIRES ARE MADE WITH POLARITIES, MAKE WIRING MATCHING TERMINAL NUMBERS(S1,S2,S3).
 3. SYMBOLS USED IN WIRING DIAGRAM ABOVE ARE,
 : CONNECTOR, : TERMINAL.
 4. THE WIRING BETWEEN MA-REMOTE CONTROLLER AND TB5 IS INCLUDED IN THE PACKAGE.

PEAD-RP60GA PEAD-RP71GA PEAD-RP100GA

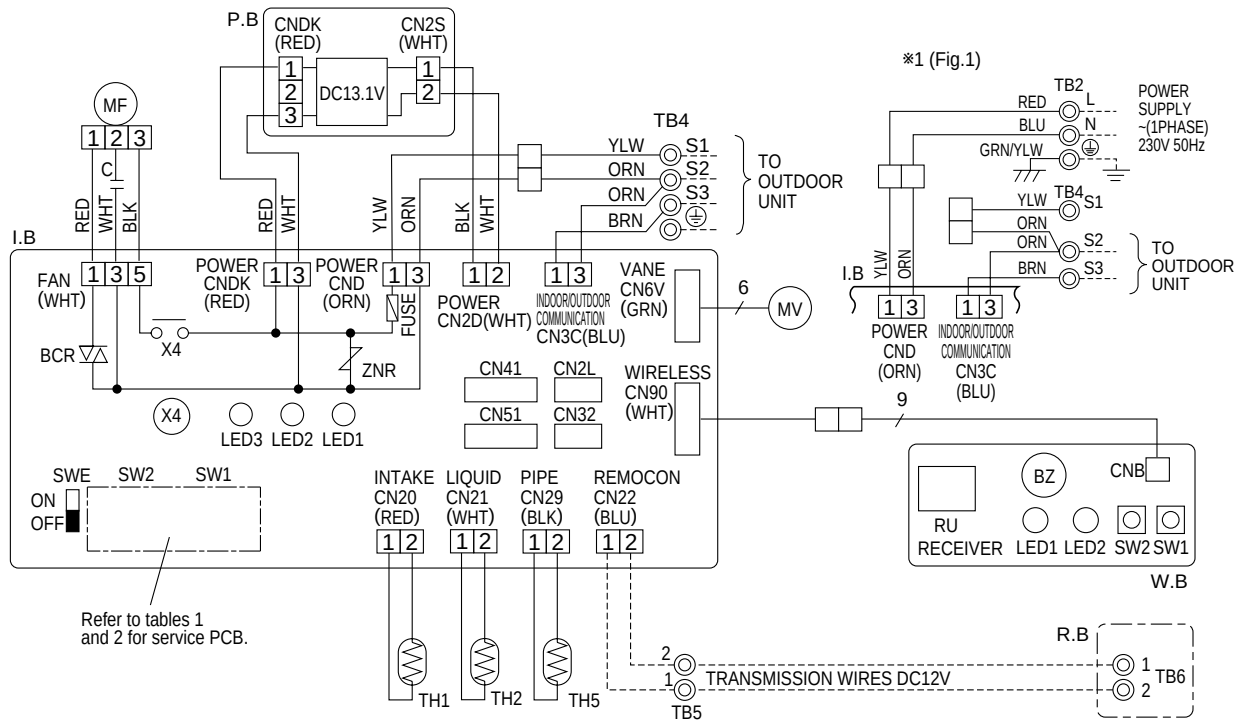
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I.B.	INDOOR CONTROLLER BOARD	SW1	SWITCH(MODEL SELECTION)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER)
FUSE	FUSE(T6.3AL250V)	SW2	SWITCH(CAPACITY CORD)	TH1	INTAKE AIR TEMP.THERMISTOR (0°C /15k Ω ,25°C/5.4k Ω DETECT)
ZNR	VARISTOR	SWE	SWITCH(EMERGENCY OPERATION)	TH2	PIPE TEMP. THERMISTOR/LIQUID (0°C /15k Ω ,25°C/5.4k Ω DETECT)
CN2L	CONNECTOR(LOSSNAY)	X1	RELAY(DRAIN PUMP)	TH5	COND./EVA. TEMP. THERMISTOR (0°C /15k Ω ,25°C/5.4k Ω DETECT)
CN24	CONNECTOR(HEATER)	X4	RELAY(FAN MOTOR)		
CN32	CONNECTOR(REMOTE SWITCH)	X5	RELAY(FAN MOTOR)		
CN41	CONNECTOR(HA TERMINAL-A)	X6	RELAY(FAN MOTOR)		
CN51	CONNECTOR(CENTRALLY CONTROL)	P.B.	INDOOR POWER BOARD		
CN90	CONNECTOR(WIRELESS)	C	CAPACITOR(FAN MOTOR)		
LED1	POWER SUPPLY(L.B.)	MF	FAN MOTOR		
LED2	POWER SUPPLY(REMOTE CONTROLLER)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)		
LED3	TRANSMISSION(INDOOR-OUTDOOR)				



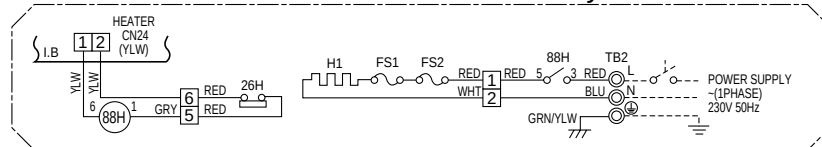
MODELS	SW1	SW2
	Model selection switch	Capacity cord switch
60GA	1 2 3 4 5 ON OFF	1 2 3 4 5 ON OFF
71GA	1 2 3 4 5 ON OFF	1 2 3 4 5 ON OFF
100GA	1 2 3 4 5 ON OFF	1 2 3 4 5 ON OFF

- NOTE 1. SINCE THE OUTDOOR SIDE ELECTRIC WIRING MAY CHANGE BE SURE TO CHECK THE OUTDOOR UNIT ELECTRIC WIRING FOR SERVICING.
2. INDOOR AND OUTDOOR CONNECTING WIRES ARE MADE WITH POLARITIES, MAKE WIRING MATCHING TERMINAL NUMBERS(S1,S2,S3).
3. SYMBOLS USED IN WIRING DIAGRAM ABOVE ARE,
 : CONNECTOR, : TERMINAL.
4. THE WIRING BETWEEN MA-REMOTE CONTROLLER AND TB5 IS INCLUDED IN THE PACKAGE.

PKA-RP50GAL



PKH-P50GALH models only



Please set the voltage using the remote controller.
For the setting method, please refer to the indoor unit Installation Manual.

SW1					SW2				
Service board					Service board				
1	2	3	4	5	1	2	3	4	5
ON	OFF	ON	OFF	ON	ON	OFF	ON	OFF	ON

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	C	CAPACITOR <FAN MOTOR>	W.B	WIRELESS REMOTE CONTROLLER BOARD
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR	RU	RECEIVING UNIT
FUSE	FUSE (T6.3AL250V)	MV	VANE MOTOR	BZ	BUZZER
ZNR	VARIATOR	TB2	TERMINAL BLOCK (HEATER) *PKH-P.GALH models only or option for PKA-RP.GAL models.	LED1	LED <RUN INDICATOR>
CN2L	CONNECTOR <LOSSNAY>	TB4	TERMINAL BLOCK <INDOOR/ OUTDOOR CONNECTING LINE>	LED2	LED <HOT ADJUST>
CN32	CONNECTOR <REMOTE SWITCH>	TB5, TB6	TERMINAL BLOCK <REMOTE CONTROLLER TRANSMISSION LINE> <OPTION>	SW1	SWITCH (HEATING ON/ OFF)
CN41	CONNECTOR <HA TERMINAL-A>			SW2	SWITCH (COOLING ON/ OFF)
CN51	CONNECTOR <CENTRALLY CONTROL>			R.B	WIRED REMOTE CONTROLLER BOARD
SW1	SWITCH <MODEL SELECTION>*See Table 1.	TH1	ROOM TEMP.THERMISTOR <0°C/ 15kΩ, 25°C/ 5.4kΩ DETECT>	HEATER	
SW2	SWITCH <CAPACITY CODE>*See Table 2.	TH2	PIPE TEMP. THERMISTOR/ LIQUID <0°C/ 15kΩ, 25°C/ 5.4kΩ DETECT>	FS1	THERMAL FUSE <104°C 10A>
SWE	SWITCH <EMERGENCY OPERATION>	TH5	COND./ EVA.TEMP. THERMISTOR <0°C/ 15kΩ, 25°C/ 5.4kΩ DETECT>	FS2	THERMAL FUSE <84°C 10A>
X4	RELAY <FAN MOTOR>			H1	HEATER
BCR	FAN CONTROL ELEMENT			26H	HEATER THERMAL SWITCH
LED1	POWER SUPPLY <I.B>			88H	HEATER CONTACTOR
LED2	POWER SUPPLY <R.B>				
LED3	TRANSMISSION <INDOOR-OUTDOOR>				

NOTES:

- Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
- Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1, S2, S3).
- Make sure that the main power supply of the booster heater is independent.
- Symbols used in wiring diagram above are, : Connector, : Terminal (block).
 - *1. When work to supply power separately to Indoor and Outdoor unit was applied, refer to Fig 1.
 - *2. For power supply system of this unit, refer to the caution label located near this diagram.

PKA-RP60FAL PKA-RP71FAL PKA-RP100FAL

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	C	CAPACITOR(FAN MOTOR)	W.B	WIRELESS REMOTE CONTROLLER BOARD
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR	RU	RECEIVING UNIT
FUSE	FUSE(T6.3AL250V)	MV	VANE MOTOR	BZ	BUZZER
ZNR	VARIATOR	TB2	TERMINAL BLOCK (HEATER) *PKH-P.FALH models only or option for PKA-RP.FALH models.	LED1	LED(RUN INDICATOR)
CN2L	CONNECTOR(LOSSNAY)	TB4	TERMINAL BLOCK(INDOOR/OUTDOOR CONNECTING LINE)	LED2	LED(HOT ADJUST)
CN32	CONNECTOR(REMOTE SWITCH)	TB5	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)(OPTION)	SW1	SWITCH(HEATING ON/OFF)
CN41	CONNECTOR(HA TERMINAL-A)			SW2	SWITCH(COOLING ON/OFF)
CN51	CONNECTOR(CENTRALLY CONTROL)			R.B	WIREDREMOTE CONTROLLER BOARD(OPTION)
SW1	SWITCH (MODEL SELECTION) *See Table 1.	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)	TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)
SW2	SWITCH (CAPACITY CODE) *See Table 2.	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ, 25°C/5.4kΩ DETECT)	HEATER	
SWE	SWITCH(EMERGENCY OPERATION)	TH5	COND./EVA.TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)	FS1,2	THERMAL FUSE(117°C 10A:60,71FALH/ 117°C 16A:100FALH)
X4	RELAY(FAN MOTOR)			H1	HEATER
BCR	FAN CONTROL ELEMENT			26H	HEATER THERMAL SWITCH
LED1	POWER SUPPLY(L.B)			88H	HEATER CONTACTOR
LED2	POWER SUPPLY(R.B)				
LED3	TRANSMISSION(INDOOR-OUTDOOR)				

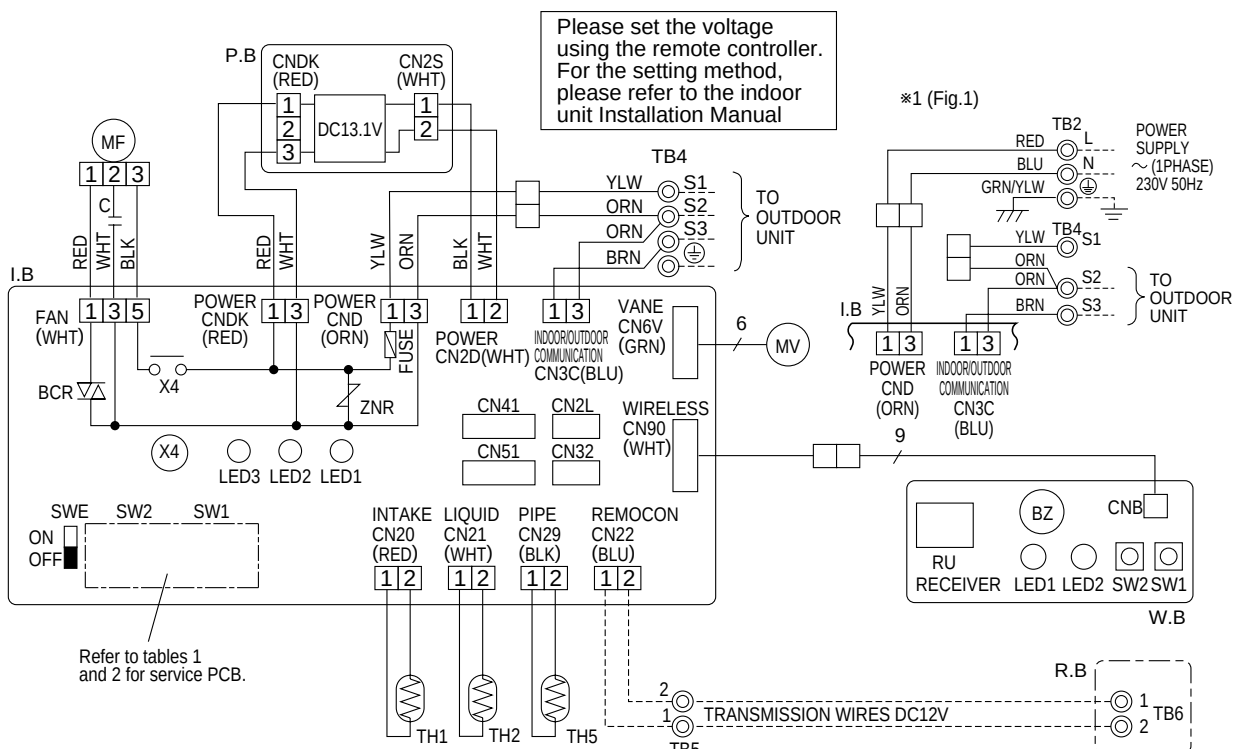


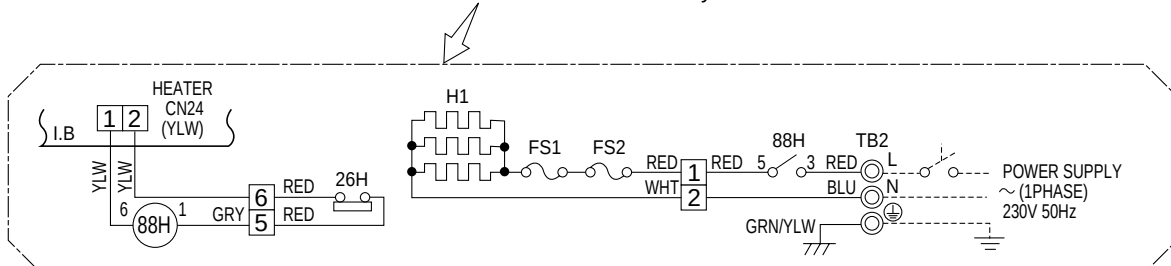
Table 1

SW1
Service board
1 2 3 4 5 ON OFF

Table 2

SW2					
MODELS	Service board	MODELS	Service board	MODELS	Service board
PKA-RP60FAL	1 2 3 4 5 ON OFF	PKA-RP71FAL	1 2 3 4 5 ON OFF	PKA-RP100FAL	1 2 3 4 5 ON OFF
PKH-P60FALH	1 2 3 4 5 ON OFF	PKH-P71FALH	1 2 3 4 5 ON OFF	PKH-P100FALH	1 2 3 4 5 ON OFF

PKH-P60~P100FALH models only



NOTES:

- Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
 - Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1, S2, S3).
 - Make sure that the main power supply of the booster heater is independent.
 - Symbols used in wiring diagram above are, : Connector, : Terminal (block).
- ※1. When work to supply power separately to Indoor and Outdoor unit was applied, refer to Fig 1.
- ※2. For power supply system of this unit, refer to the caution label located near this diagram.

PCA-RP50GA PCA-RP60GA PCA-RP71GA
PCA-RP100GA PCA-RP125GA PCA-RP140GA

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	MF	FAN MOTOR	W.B	WIRELESS REMOTE CONTROLLER BOARD(OPTION)
I.B	INDOOR CONTROLLER BOARD	MV	VANE MOTOR	RU	RECEIVING UNIT
FUSE	FUSE (T6.3A/250V)	DP	DRAIN-UP MACHINE (OPTION)	BZ	BUZZER
ZNR	VARIATOR	DS	DRAIN SENSOR (OPTION)	LED1	LED(RUN INDICATOR)
CN2L	CONNECTOR(LOSSNAY)	TB2	TERMINAL BLOCK (HEATER) *PCH-P.GAH models only or option for PCA-RP.GA models.	LED2	LED(HOT ADJUST)
CN32	CONNECTOR(REMOTE SWITCH)	TB4	TERMINAL BLOCK(INDOOR/OUTDOOR CONNECTING LINE)	SW1	SWITCH(HEATING ON/OFF)
CN41	CONNECTOR(HA TERMINAL-A)	TB5,TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)	SW2	SWITCH(COOLING ON/OFF)
CN51	CONNECTOR(CENTRALLY CONTROL)	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)	HEATER	
SW1	SWITCH (MODEL SELECTION) *See Table 1.	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ, 25°C/5.4kΩ DETECT)	FS1,2	THERMAL FUSE(98°C/10A:50GAH/117°C/16A:100GAH/110°C/16A:60,71,125,140GAH)
SW2	SWITCH (CAPACITY CODE) *See Table 2.	TH5	COND./EVA.TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)	H1	HEATER
SWE	SWITCH(EMERGENCY OPERATION)	R.B	WIRED REMOTE CONTROLLER BOARD	26H	HEATER THERMAL SWITCH
X1	RELAY(DRAIN PUMP)			88H	HEATER CONTACTOR
X4	RELAY(FAN MOTOR)				
BCR	FAN CONTROL ELEMENT				
LED1	POWER SUPPLY(L.B)				
LED2	POWER SUPPLY(R.B)				
LED3	TRANSMISSION(INDOOR-OUTDOOR)				
C	CAPACITOR(FAN MOTOR)				

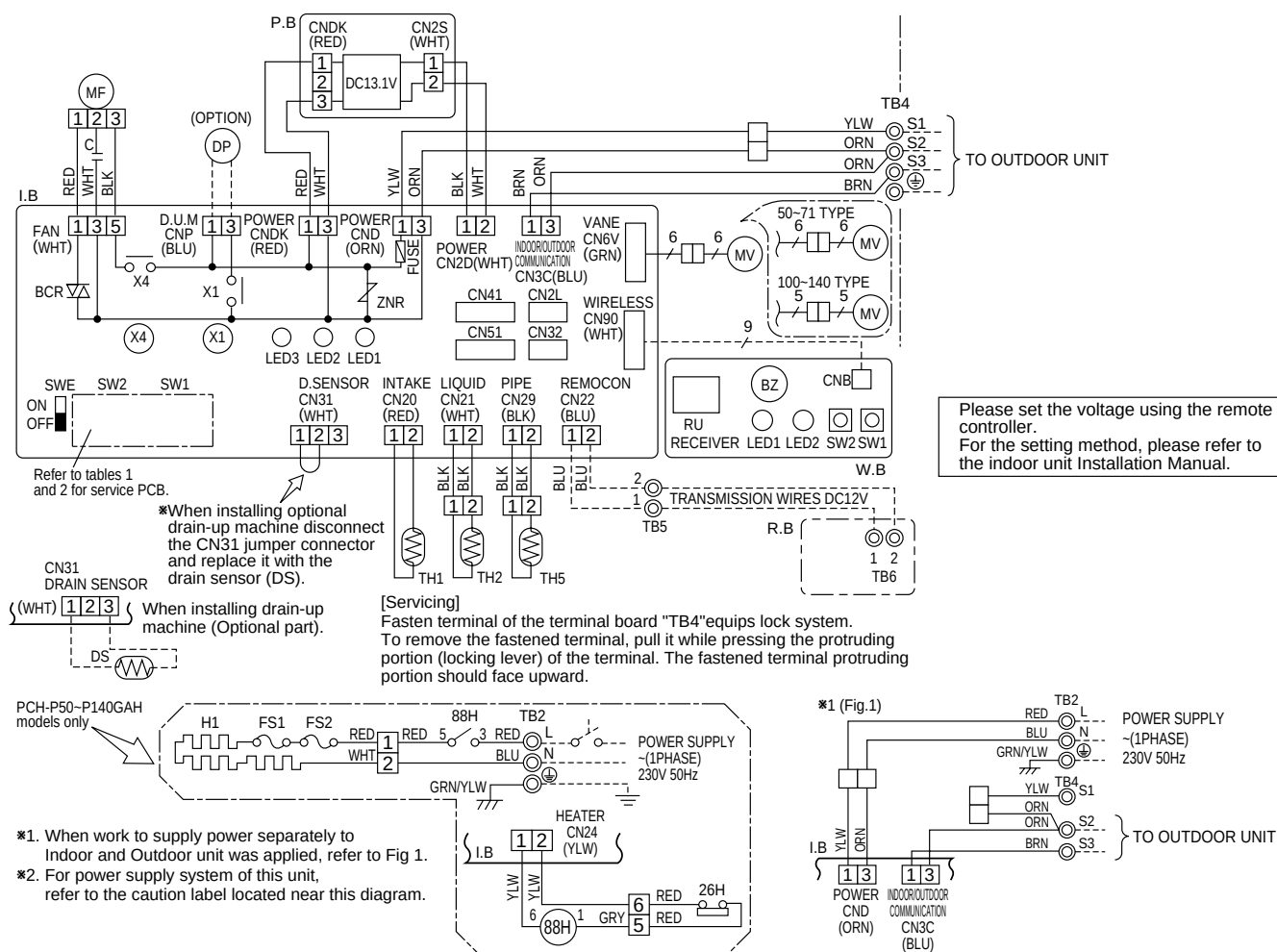


Table 1

MODELS	Service board
PCA-RP.GA	1 2 3 4 5 ON
PCH-P.GAH	1 2 3 4 5 OFF

Table 2

MODELS	Service board	MODELS	Service board
PCA-RP50GA	1 2 3 4 5 ON	PCA-RP100GA	1 2 3 4 5 ON
PCH-P50GAH	1 2 3 4 5 OFF	PCH-P100GAH	1 2 3 4 5 OFF
PCA-RP60GA	1 2 3 4 5 ON	PCA-RP125GA	1 2 3 4 5 ON
PCH-P60GAH	1 2 3 4 5 OFF	PCH-P125GAH	1 2 3 4 5 OFF
PCA-RP71GA	1 2 3 4 5 ON	PCA-RP140GA	1 2 3 4 5 ON
PCH-P71GAH	1 2 3 4 5 OFF	PCH-P140GAH	1 2 3 4 5 OFF

NOTES:

- Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
- Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1, S2, S3).
- Make sure that the main power supply of the booster heater is independent.
- Symbols used in wiring diagram above are,
 : Connector, : Terminal (block).

PCA-RP71HA PCA-RP125HA

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
P. B	INDOOR POWER BOARD	MF1, MF2	FAN MOTOR
I. B	INDOOR CONTROLLER BOARD	C1, C2	CAPACITOR(FAN MOTOR)
FUSE	FUSE (T6.3AL250V)	H2	DEW PREVENTION HEATER
ZNR	VARISTOR	TB2	TERMINAL BLOCK(INDOOR UNIT POWER (OPTION))
CN2L	CONNECTOR (LOSSNAY)	TB4	TERMINAL BLOCK(INDOOR/OUTDOOR CONNECTING LINE)
CN32	CONNECTOR (REMOTE SWITCH)	TB5,TB6	TERMINAL BLOCK(REMOTE CONTROLLER TRANSMISSION LINE)
CN41	CONNECTOR (HA TERMINAL-A)	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)
CN51	CONNECTOR (CENTRALLY CONTROLL)	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ, 25°C/5.4kΩ DETECT)
LED1	POWER SUPPLY (I. B)	TH5	COND./ EVA.TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)
LED2	POWER SUPPLY (R. B)	R. B	WIRED REMOTE CONTROLLER BOARD
LED3	TRANSMISSION(INDOOR-OUTDOOR)		
X1	RELAY (DEW PREVENTION HEATER)		
X4	RELAY(FAN MOTOR)		
X5	RELAY(FAN MOTOR)		
X6	RELAY(FAN MOTOR)		
SW1	SWITCH (MODEL SELECTION)※See Table 1.		
SW2	SWITCH (CAPACITY CODE)※See Table 2.		
SWE	SWITCH (EMERGENCY OPERATION)		

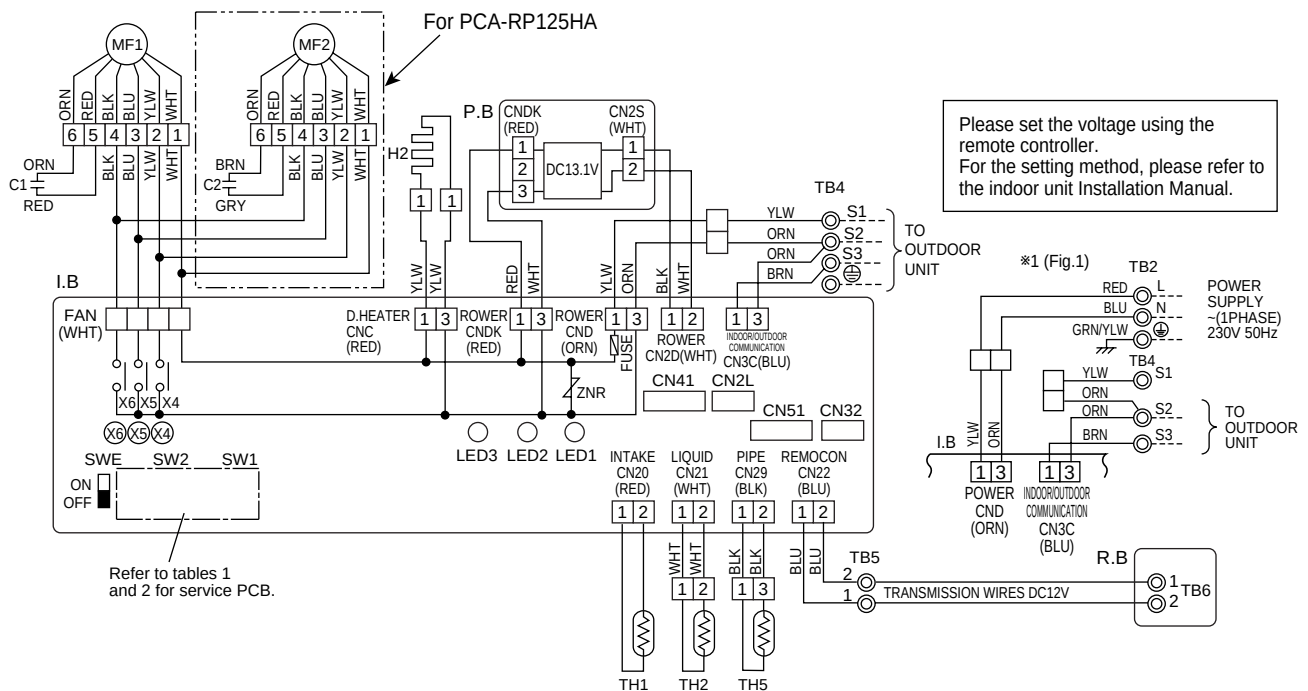


Table 1

SW1
Service board
1 2 3 4 5 ON OFF

Table 2

MODELS	Service board	MODELS	Service board
PCA-RP71HA	1 2 3 4 5 ON OFF	PCA-RP125HA	1 2 3 4 5 ON OFF

NOTES:

- Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
 - Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1,S2,S3).
 - Symbols used in wiring diagram above are, : Connector, : Terminal (block).
- ※1 ; When work to supply power separately to Indoor and Outdoor unit was applied, refer to Fig1.
- ※2 ; For power supply system of this unit, refer to the caution label located near this diagram.

PSA-RP71GA PSA-RP100GA PSA-RP125GA PSA-RP140GA

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
P.B	INDOOR POWER BOARD	I.B	INDOOR CONTROLLER BOARD	C	CAPACITOR (FAN MOTOR)
FUSE	FUSE (T6.3AL250V)	SW1	SWITCH (MODEL SELECTION)※See Table 1.	MF	FAN MOTOR
ZNR	VARISTOR	SW2	SWITCH (CAPACITY CODE)※See Table 2.	ML	LOUVER MOTOR
CN2L	CONNECTOR (LOSSNAY)	SWE	SWITCH (EMERGENCY OPERATION)	TB2	TERMINAL BLOCK (HEATER)※PSH-P.GAH models only or option for PSA-RP.GA models.
CN32	CONNECTOR (REMOTE SWITCH)	X2	RELAY (LOUVER)	TB4	TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE)
CN41	CONNECTOR (HA TERMINAL-A)	X4	RELAY (FAN MOTOR)	TH1	ROOM TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)
CN51	CONNECTOR (CENTRALLY CONTROL)	X5	RELAY (FAN MOTOR)	TH2	PIPE TEMP.THERMISTOR/LIQUID (0°C/15kΩ, 25°C/5.4kΩ DETECT)
LED1	POWER SUPPLY (I.B)	X6	RELAY (FAN MOTOR)	TH5	COND./EVA.TEMP.THERMISTOR (0°C/15kΩ, 25°C/5.4kΩ DETECT)
LED2	POWER SUPPLY (R.B)	R.B	WIRED REMOTE CONTROLLER BOARD		
LED3	TRANSMISSION (INDOOR-OUTDOOR)	TB6	TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE)		
		HEATER			
		FS1,2	THERMAL FUSE (110°C16A)		
		H	HEATER		
		26H	HEATER THERMAL SWITCH		
		88H	HEATER CONTACTOR		

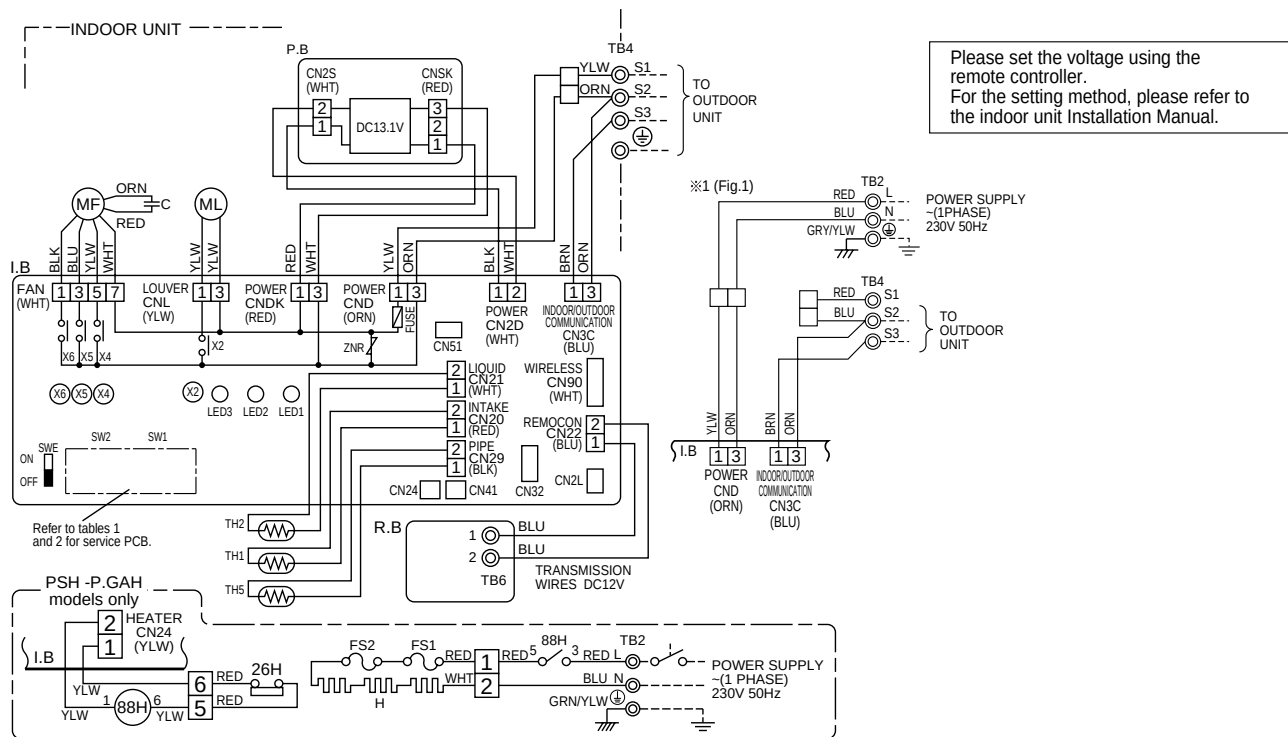


Table 1

MODELS	Service board
PSA-RP.GA	1 2 3 4 5 ON
PSH-P.GAH	1 2 3 4 5 OFF

- ※ 1 ; When work to supply power separately to Indoor and Outdoor unit was applied, refer to Fig1.
- ※ 2 ; For power supply system of this unit, refer to the caution label located near this diagram.

Table 2

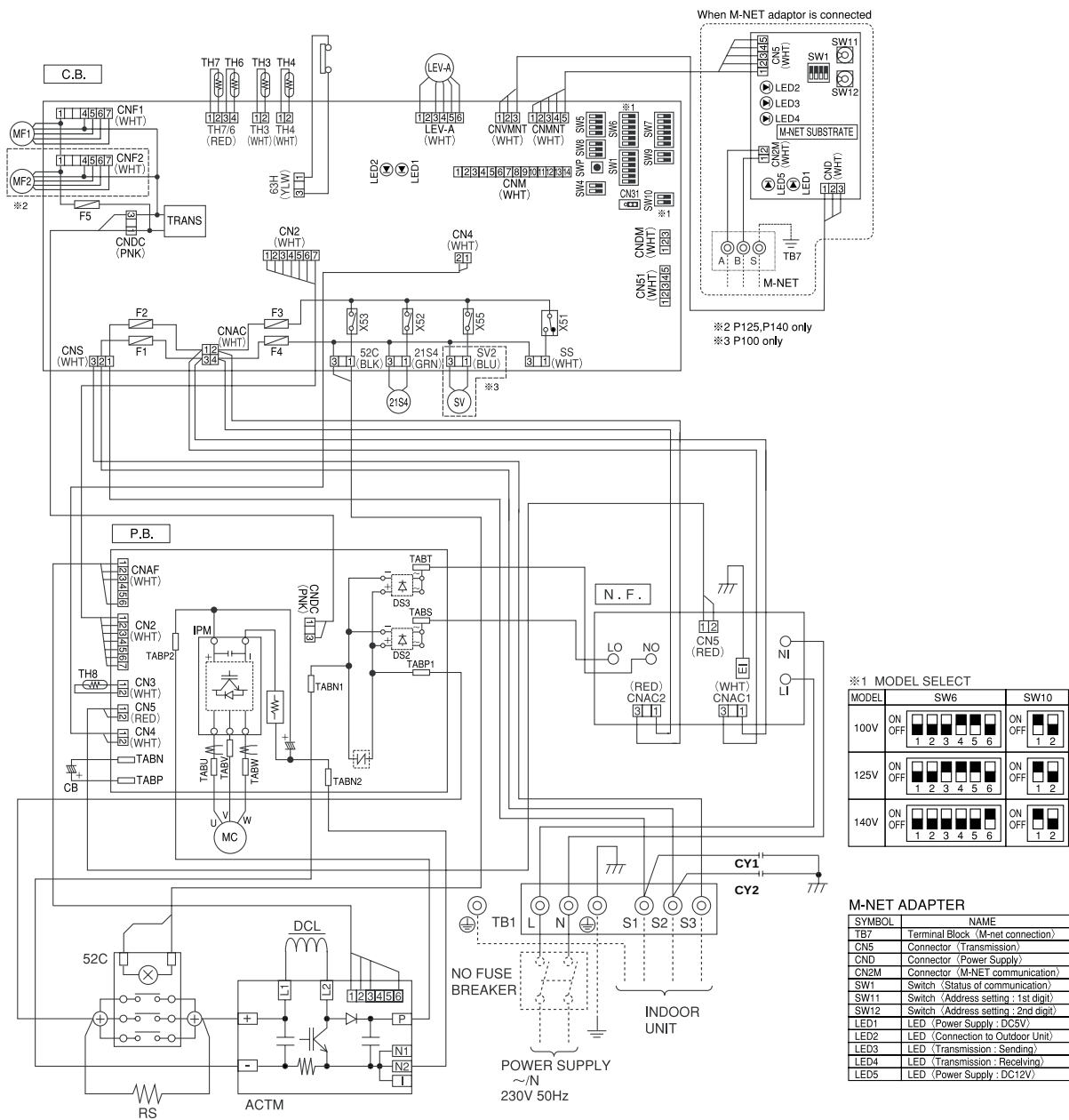
MODELS	Service board
PSA-RP71GA	1 2 3 4 5 ON
PSH-P71GAH	1 2 3 4 5 OFF
PSA-RP100GA	1 2 3 4 5 ON
PSH-P100GAH	1 2 3 4 5 OFF
PSA-RP125GA	1 2 3 4 5 ON
PSH-P125GAH	1 2 3 4 5 OFF
PSA-RP140GA	1 2 3 4 5 ON
PSH-P140GAH	1 2 3 4 5 OFF

[NOTES]

1. Symbols used in wiring diagram above are, : Connector, : Terminal (block).
2. Indoor and outdoor connecting wires are made with polarities, make wiring matching terminal numbers (S1,S2,S3).
3. Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
4. This diagram shows the wiring of Indoor and Outdoor connecting wires (specification of 230V), adopting superimposed system of power and signal.

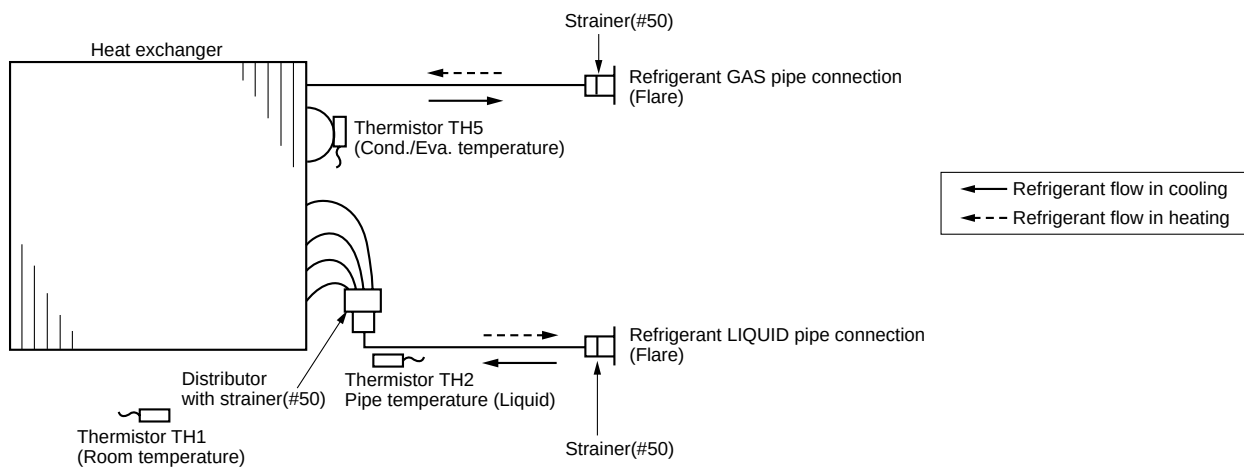
PUHZ-P100VHA PUHZ-P125VHA PUHZ-P140VHA

TB1	Terminal Block (Power Supply, Indoor/Outdoor)	TABN1/N2/N	Connection Terminal (DC Voltage)	SW9	Switch
MC	Motor for Compressor	CN2~5	Connector	SW10	Switch (Model Select)
MF1 (MF2)	Fan Motors	CNDC	Connector	SWP	Switch (Pump Down)
21S4	Solenoid Valve (Four-Way Valve)	CNAF	Connector	CN31	Connector (Emergency Operation)
SV	Solenoid Valve (Bypass Valve)	DS2,3	Diode Bridge	LED1,LED2	Light Emitting Diodes (Operation Inspection Indicators)
63H	High Pressure Switch	IPM	Power Module	CN2	Connector
TH3	Thermistor (Outdoor Pipe)	N.F.	Noise Filter Circuit Board	CNAC	Connector
TH4	Thermistor (Discharge)	LI/O	Connection Lead (L-Phase)	CNDC	Connector
TH6	Thermistor (Outdoor 2-Phase Pipe)	NI/NO	Connection Lead (N-Phase)	CNS	Connector
TH7	Thermistor (Outdoor)	EI	Connection Terminal (Ground)	CNF1	Connector
TH8	Thermistor (Heat Sink)	CNAC1/2	Connector	CNF2	Connector
LEV-A	Electronic Expansion Valve	CN5	Connector	52C	Connector
DCL	Reactor	C.B.	Controller Circuit Board	21S4	Connector
52C	52C Relay	F1~4	Fuse (T6.3AL250V)	SS	Connector (Connection for Option)
RS	Rush Current Protect Resistor	SW1	Switch (Forced Defrost, Defect History Record Reset, Refrigerant Address)	SV2	Connector
ACTM	Active Filter Module	SW4	Switch (Test Operation)	CNM	Connector (A-Control Service Inspection Kit)
CB	Main Smoothing Capacitor	SW5	Switch (Function Switch)	CNMNT	Connector (Connected to Optional M-NET Adapter Board)
CY1, CY2	Capacitor	SW6	Switch (Model Select)	CNMVMT	Connector (Connected to Optional M-NET Adapter Board)
P.B.	Power Circuit Board	SW7	Switch (Function Setup)	CNDM	Connector (Connected for Option (Contact Input))
TABU/V/W	Connection Terminal (U/V/W-Phase)	SW8	Switch		
TABS/T	Connection Terminal (L/N-Phase)				
TABP1/P2/P	Connection Terminal (DC Voltage)				



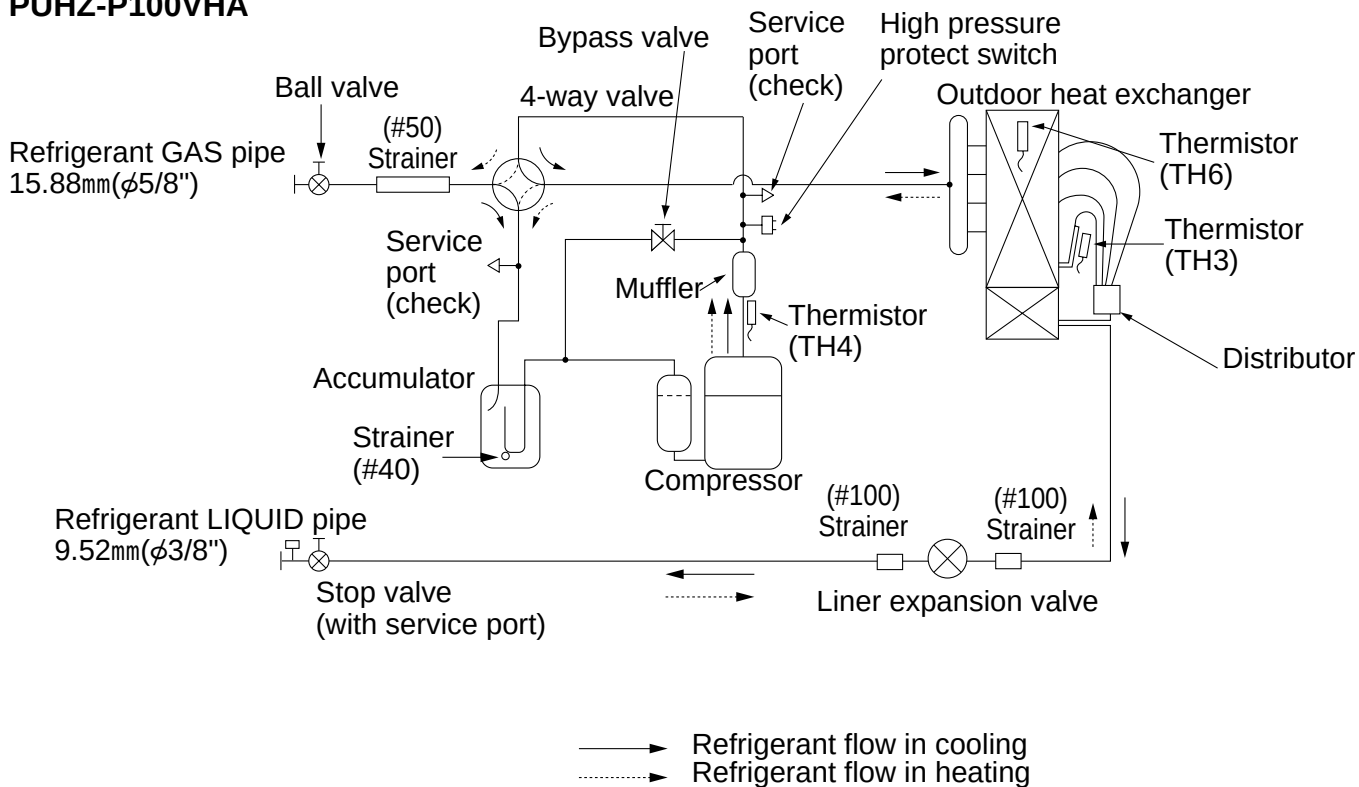
5-1. INDOOR UNIT

PLA-RP-AA(2) PCA-RP-GA PCA-RP-HA
 PKA-RP-GAL PKA-RP-FAL PSA-RP-GA
 PEAD-RP-EA(2) PEAD-RP-GA

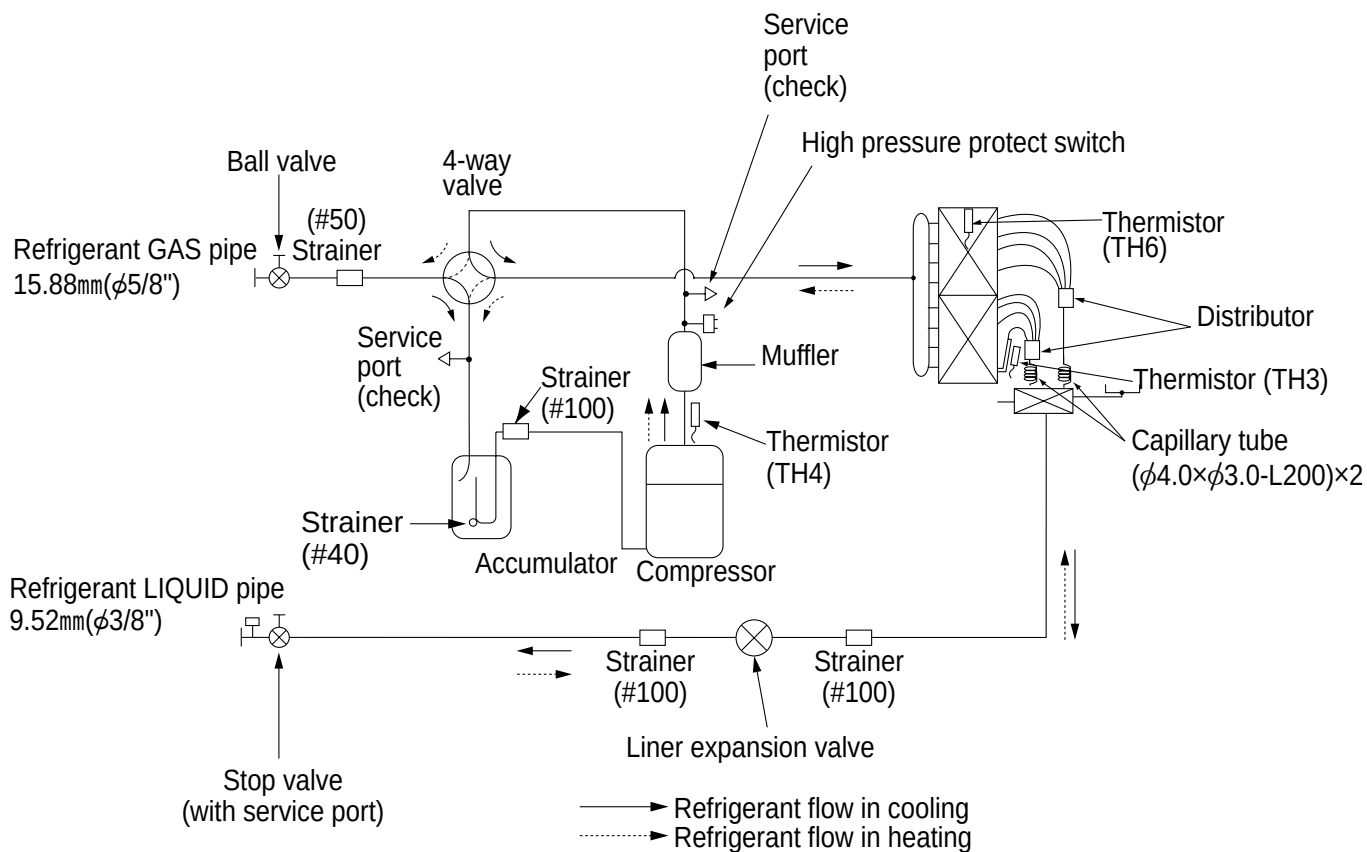


5-2. OUTDOOR UNIT

PUHZ-P100VHA

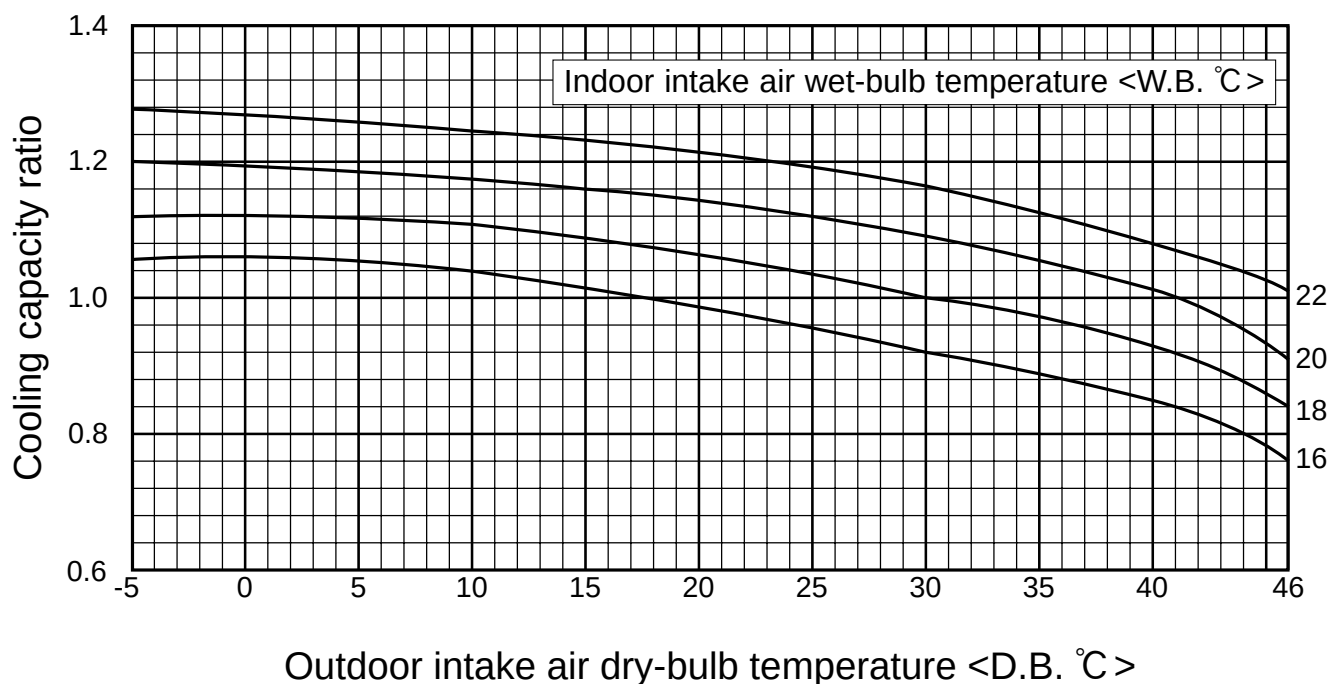


PUHZ-P125,140VHA

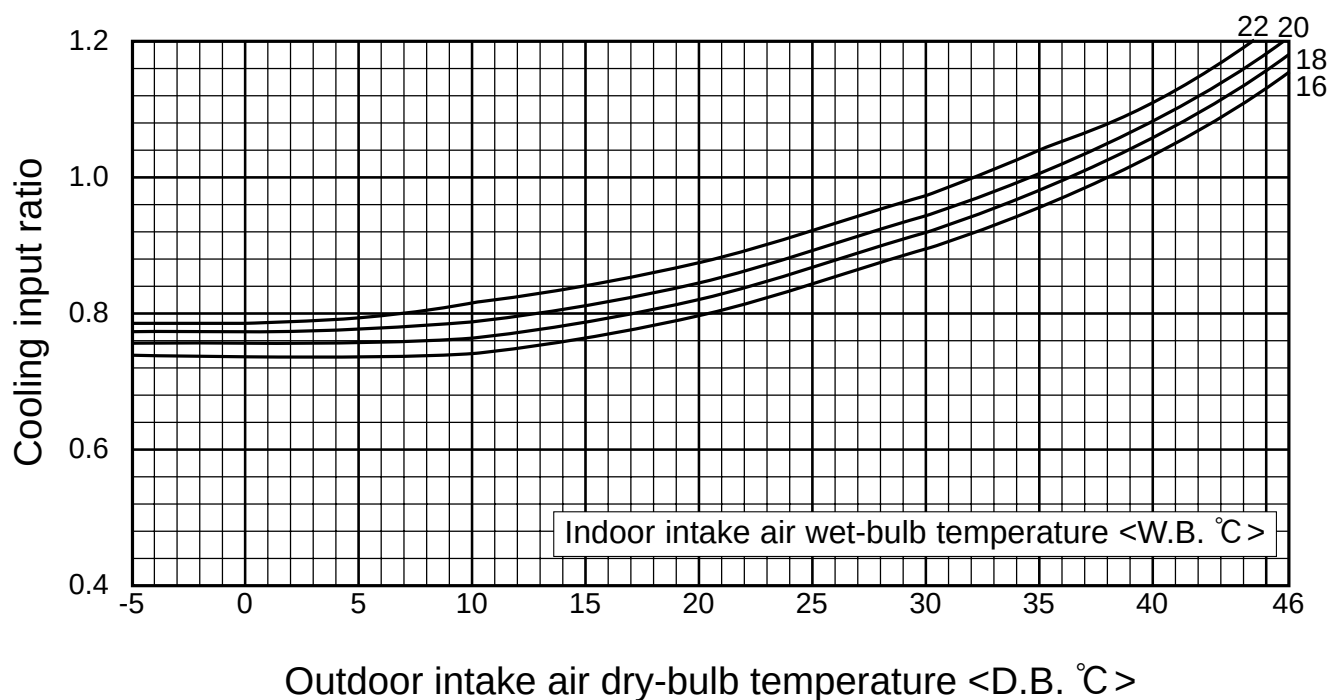


6-1. FOR THE COMBINATION OF OUTDOOR UNIT PUHZ-P100~140VHA

Cooling capacity

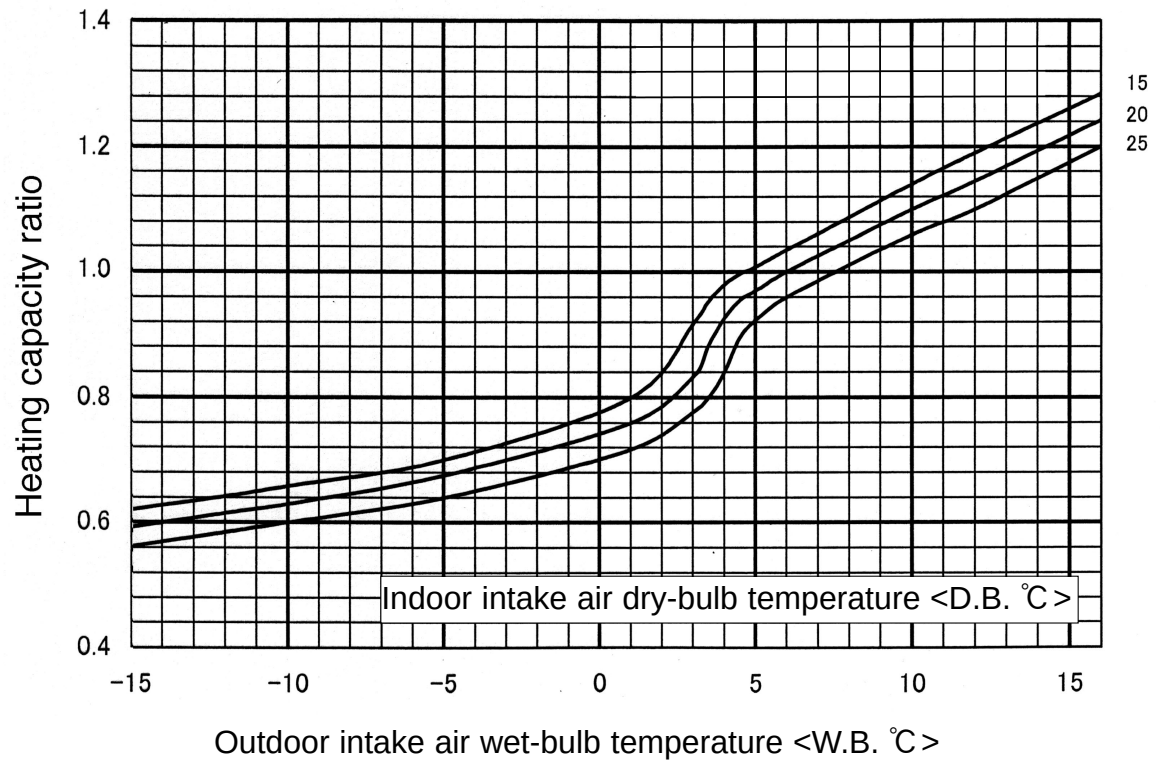


Cooling input

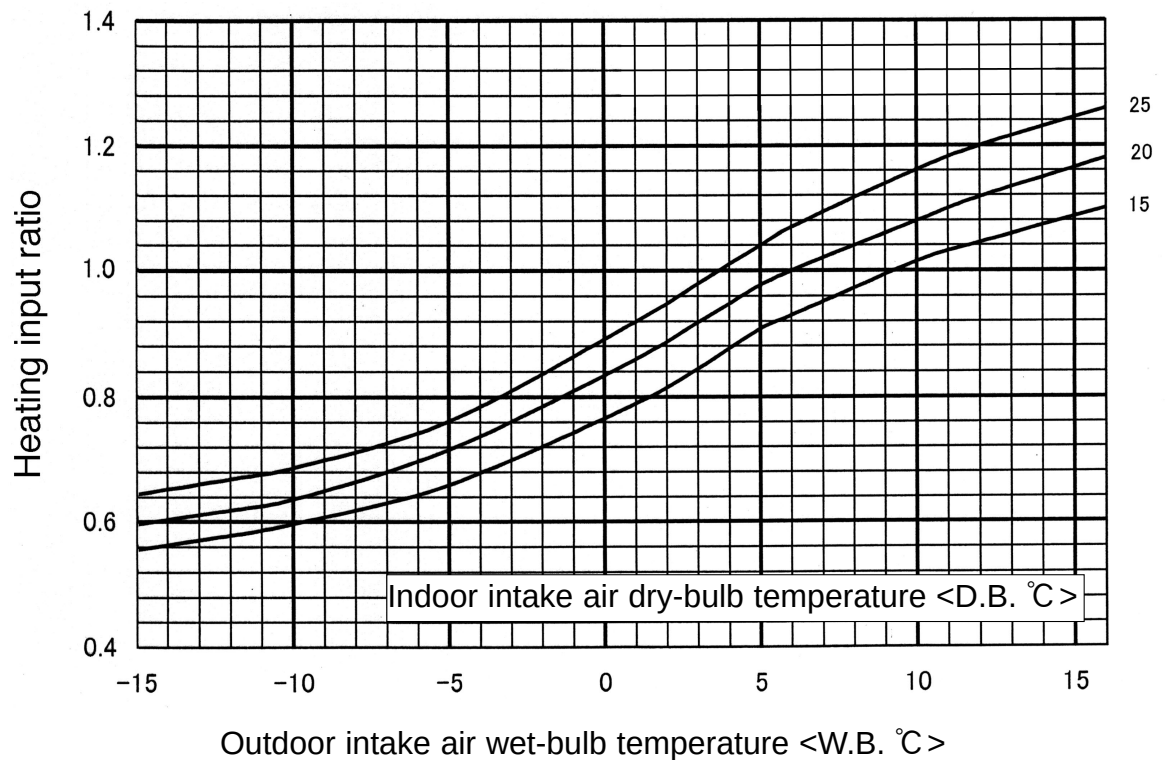


Note : This diagrams show the case where the operation frequency of a compressor is fixed.

Heating capacity



Heating input



Note : This diagrams show the case where the operation frequency of a compressor is fixed.

7-1. COOLING CAPACITY CORRECTION FACTORS

Outdoor unit	Refrigerant piping length (one way)						
	5m	10m	20m	30m	40m	50m	55m
PUHZ-P100VHA	1.00	0.985	0.957	0.931	0.908	0.886	0.876
PUHZ-P125VHA	1.00	0.981	0.946	0.914	0.885	0.858	0.845
PUHZ-P140VHA	1.00	0.976	0.931	0.893	0.858	0.827	0.813

7-2. HEATING CAPACITY CORRECTION FACTORS

Outdoor unit	Refrigerant piping length (one way)						
	5m	10m	20m	30m	40m	50m	55m
PUHZ-P100VHA	1.00	0.997	0.991	0.985	0.979	0.973	0.970
PUHZ-P125VHA	1.00	0.997	0.991	0.985	0.979	0.973	0.970
PUHZ-P140VHA	1.00	0.997	0.991	0.985	0.979	0.973	0.970

8-1. PIPE LENGTH

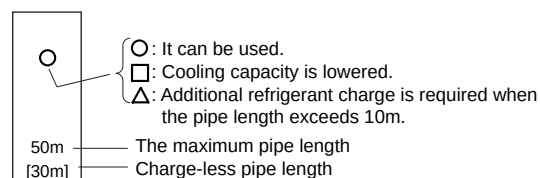
8-1-1. 1:1 SYSTEM

Pipe length

<Table 1> Maximum pipe length

Liquid pipe (mm)	OD	ø9.52			ø12.7	
		t0.8			t0.8	
Gas pipe (mm)	OD	ø12.7	ø15.88	ø19.05	ø15.88	ø19.05
		Thickness	t1.0	t1.0	t1.0	t1.0
P100		Standard size 50m [20m]	○ 50m [20m]	△ 25m [10m]	△ 25m [10m]	
P125,P140		Standard size 50m [30m]	○ 50m [30m]	△ 30m [10m]	△ 30m [10m]	

<Marks in the table>



8-1-2. TWIN AND TRIPLE SYSTEM

(1) TWIN SYSTEM

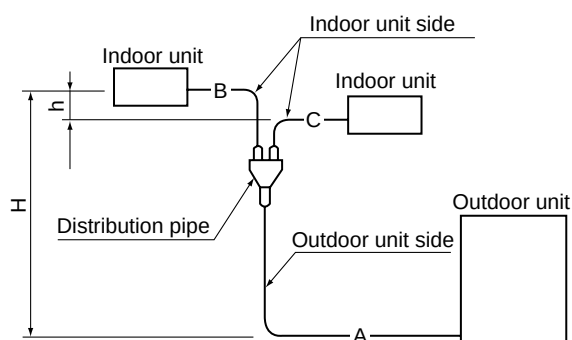
<Table 2> Maximum pipe length

Main pipe (mm) [A]	Liquid pipe	P100(RP50×2)			P125(RP60×2) • P140(RP71×2)		
		ø9.52	ø9.52	ø12.7	ø9.52	ø9.52	ø12.7
Branch pipe (mm) [B, C]	Gas pipe	ø15.88	ø19.05	ø19.05	ø15.88	ø19.05	ø19.05
	Liquid pipe ø6.35	Standard size 50m	○ 50m	△ 25m			
	Gas pipe ø12.7	[20m]	[20m]	[10m]			
	Liquid pipe ø9.52	○ 50m	○ 50m	△ 25m	Standard size 50m	○ 50m	△ 30m
	Gas pipe ø15.88	[20m]	[20m]	[10m]	[30m]	[30m]	[10m]
	Liquid pipe ø12.7						
	Gas pipe ø19.05						

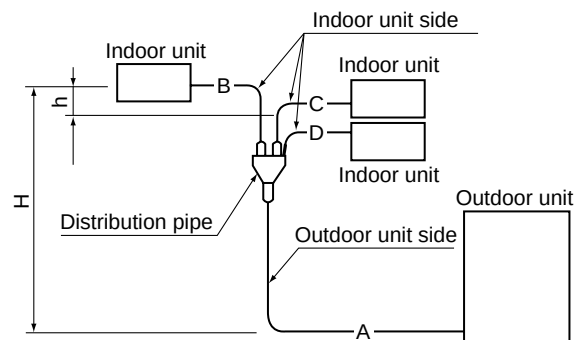
(2) TRIPLE SYSTEM

<Table 3> Maximum pipe length

Main pipe (mm) [A]	Liquid pipe	P140(RP50×2)		
		ø9.52	ø9.52	ø12.7
Branch pipe (mm) [B, C, D]	Gas pipe	ø15.88	ø19.05	ø19.05
	Liquid pipe ø6.35	Standard size 50m	○ 50m	△ 30m
	Gas pipe ø12.7	[30m]	[30m]	[10m]
	Liquid pipe ø9.52	○ 50m	○ 50m	△ 30m
	Gas pipe ø15.88	[30m]	[30m]	[10m]
	Liquid pipe ø12.7			
	Gas pipe ø19.05			



<TWIN SYSTEM>
 Total length A + B + C
 P100-140: 50 m



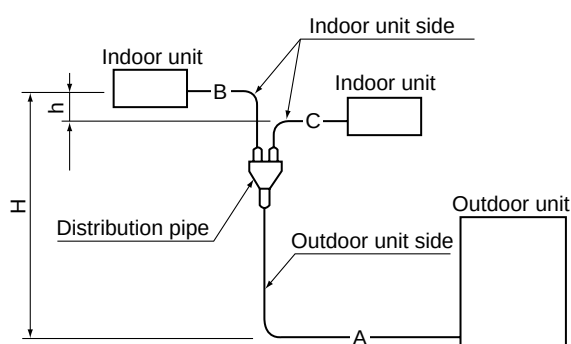
<TRIPLE SYSTEM>
 Total length A + B + C + D
 P140: 50 m

(3) Pipe size and refrigerant pipe limits.

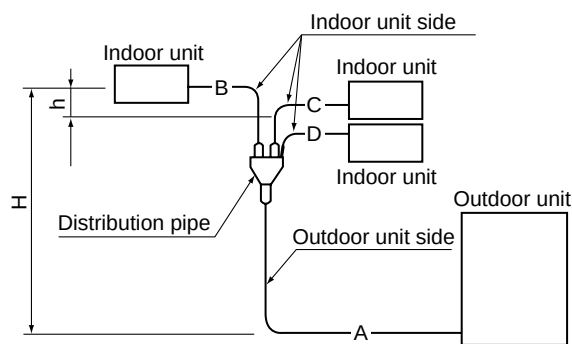
	Outdoor unit	Pipe size (mm)				Actual piping leng <m>			Height deffence <m>		(Note 1) No. of bend
		Gas side		Liquid side		Total length A+B+C+D	Indoor ~ Indoor	Branch pipe B, C, D	Indoor ~ Outdoor	Indoor ~ Indoor	
		Outdoor unit side	Indoor unit side	Outdoor unit side	Indoor unit side						
TWIN	100-140	φ15.88<5/8>	RP50 φ12.7<1/2>	φ9.52<3/8>	RP50 φ6.35<1/4>	50m	B-C 8m	20m	H30m	h 1m	15
TRIPLE	140		RP60,71 φ15.88<5/8>		RP60,71 φ9.52<3/8>	B-C C-D B-D 8m					

Note1. The number of bends in the refrigerant pipe is respectively 8 or less in the range of <A+B> <A+C> <A+D>

2. PUHZ-P100: 20 m chargeless, PUHZ-P125,140: 30 m chargeless



<TWIN SYSTEM>
Total length A + B + C
P100-140: 50 m



<TRIPLE SYSTEM>
Total length A + B + C + D
P140: 50 m

8-2. ADJUSTING THE AMOUNT OF REFRIGERANT

• Check additional refrigerant charging amount referring to table 5.6 when liquid pipe is one size larger than standard diameter.

<Table 5> Required additional charge when the pipe size is larger than the standard diameter (1:1 SYSTEM)

	Liquid pipe dia	Chargeless	Max. pipe length	Refrigerant amount to be added
P100	$\phi 12.7$	10m	25m	100 g per 1 m longer than 10 m
P125,140	$\phi 12.7$	10m	30m	100 g per 1 m longer than 10 m

<Table 6> Required additional charge when the pipe size is larger than the standard diameter (TWIN/TRIPLE SYSTEM)

Capacity	When the extension pipe length (main piping + branch piping) exceed 10 m
P100,125,140	Additional refrigerant amount $\Delta W(g) = (100 \times L1) + (60 \times L2) + (30 \times L3) - 2000$

If the calculation produces a negative number ($\Delta W \leq 0$), additional charging is not necessary.

L1: $\phi 12.7$ liquid pipe length (m)

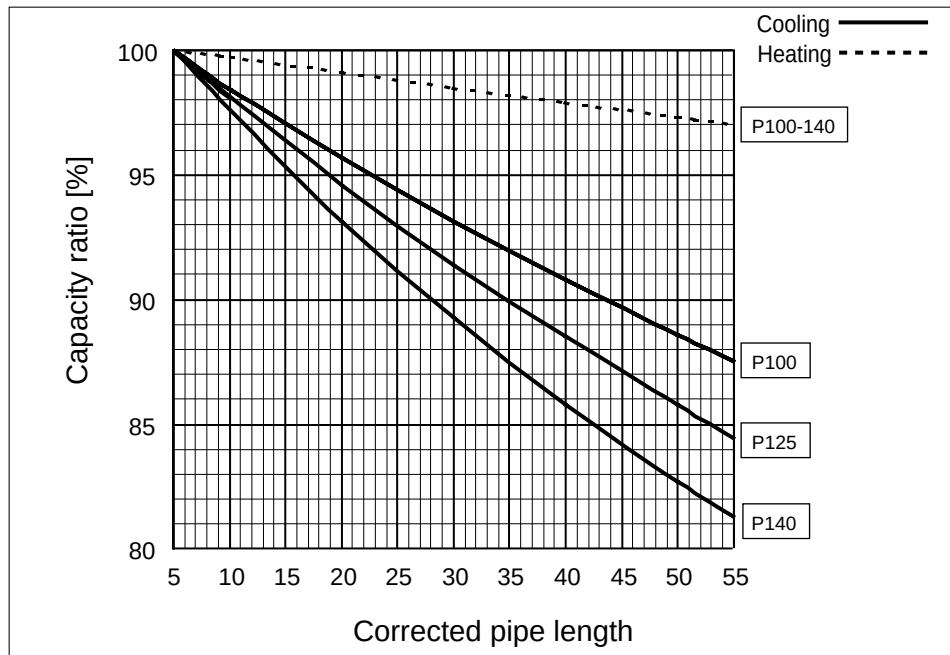
L2: $\phi 9.52$ liquid pipe length (m)

L3: $\phi 6.35$ liquid pipe length (m)

<Table 7> Additional refrigerant charging amount for pipe of standard diameter

Outdoor unit	Permitted pipe length	Amount of unit filling refrigerant (kg)	Additional refrigerant charging amount for pipe length exceeding 30 m (kg)		
			21 — 30m	31 — 40m	41 — 50m
PUHZ-P100VHA	50m or less	2.7kg	0.6kg	1.2kg	1.8kg
PUHZ-P125,140VHA	50m or less	4.5kg	0kg	0.6kg	1.2kg

8-3. CAPACITY CURVE



9-1. OUTLET AIR SPEED AND COVERAGE RANGE

		PLA-RP50AA	PLA-RP60AA	PLA-RP71AA	PLA-RP100AA2	PLA-RP125AA2	PLA-RP140AA2
Air flow	m ³ /min.	18	18	20	28	30	30
Air speed	m/sec.	3.6	3.6	4.0	4.9	6.6	6.6
Coverage range	m	5.2	5.2	5.7	7.4	8.9	8.9

		PCA-RP50GA	PCA-RP60GA	PCA-RP71GA	PCA-RP100GA	PCA-RP125GA	PCA-RP140GA
Air flow	m ³ /min	13	18	18	25	34	34
Air speed	m/sec	3.7	3.8	3.8	4.1	4.4	4.4
Coverage range	m	8.8	10.4	10.4	12.6	15.2	15.2

		PCA-RP71HA	PCA-RP125HA
Air flow	m ³ /min	19	38
Air speed	m/sec	2.9	4.2
Coverage range	m	7.9	13.2

		PKA-RP50GAL
Air flow	m ³ /min	12
Air speed	m/sec	5.3
Coverage range	m (ft)	10(32.8)

		PKA-RP60FAL	PKA-RP71FAL	PKA-RP100FAL
Air flow	m ³ /min	20	20	28
Air speed	m/sec	4.9	4.9	5.4
Coverage range	m (ft)	12.4(40.7)	12.4(40.7)	15.3(50.2)

		PSA-RP71GA	PSA-RP100GA	PSA-RP125GA	PSA-RP140GA
Air flow	m ³ /min	18	31	33	35
Air speed	m/sec	2.6	4.5	4.8	4.9
Coverage range	m	8.3	14.3	15.2	16.1

The air coverage range is the value up to the position where the air speed is 0.25m/sec. when air is blown out horizontally from the unit at the Hi notch position.

The coverage range should be used only as a general guideline since it varies according to the size of the room and the furniture inside the room.

9-2. PLA-RP-AA(2)

9-2-1. FRESH AIR INTAKE AMOUNT

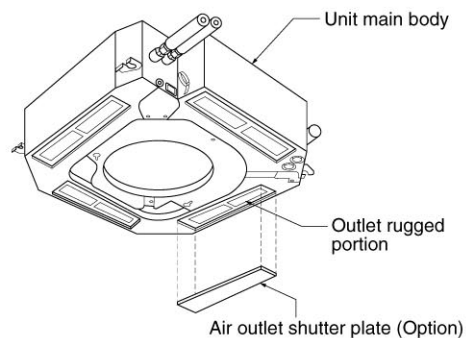
1. Adjusting the width of the air outlets

● Change of outlet numbers

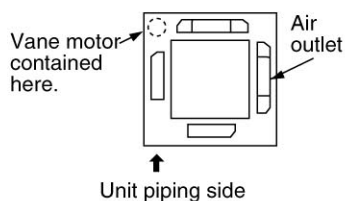
[The optional air outlet shutter is necessary.]

To change the air outlet numbers to 3-, or 2-way outlet, the outlets should be closed with the optional air outlet shutter.

(When the air outlets are closed, close the vane by removing the vane connector.)



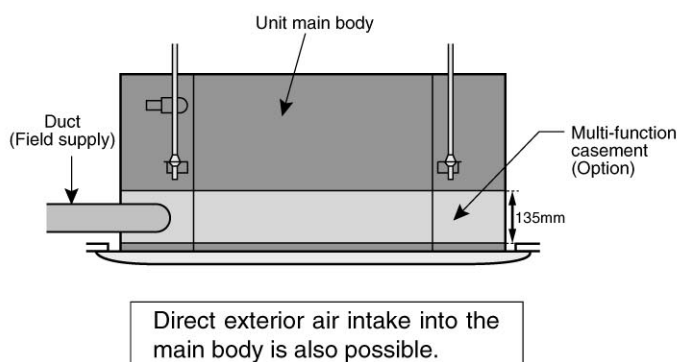
- For the portion to be cut (V-shaped groove), see the figure below (as seen from the rear of the panel).



2. Fresh air intake (Installation of site)

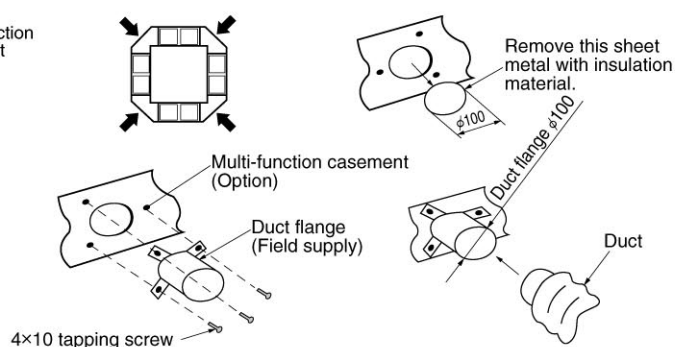
- By mounting the optional multi-function casement to the indoor unit main body, and mounting the duct and duct flange (field supply) onto it further, fresh exterior air intake can be accomplished.

(The mounting of the multi-function casement increases the height of the ceiling plenum by 135mm.)



Knockout hole for fresh air intake

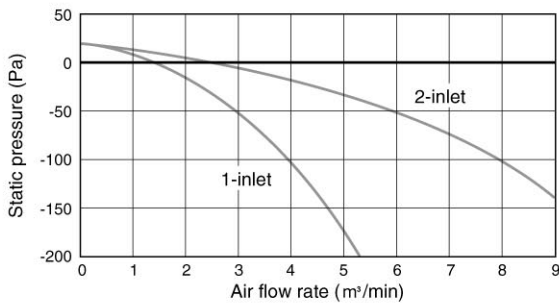
Preparation of knockout hole



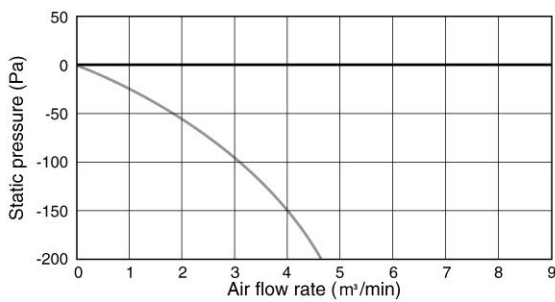
3. Fresh air intake volume & static pressure characteristics

① PLA-RP100/RP125/RP140AA2

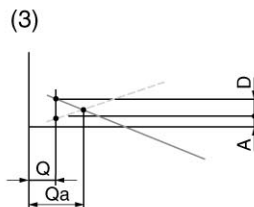
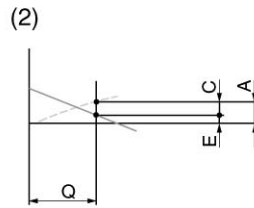
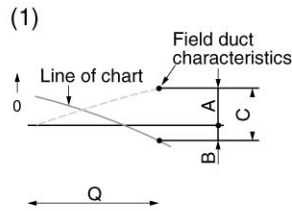
(at using of multi-function casement, standard filter)



② PLA-RP100/RP125/RP140AA2 (Direct intake to unit)



How to read the chart



Q Design fresh air intake volume (m³/min)

A Static pressure loss [Pa] of fresh air intake duct at air flow rate of Q

B Required boost pressure [Pa] of air conditioner inlet at air flow rate of Q

C Required static pressure [Pa] of booster fan at air flow rate of Q

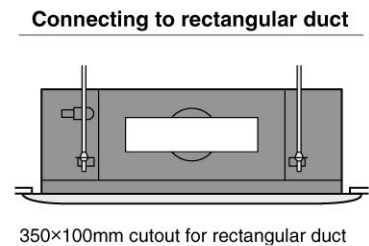
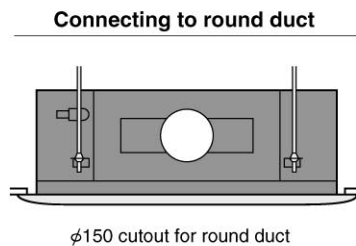
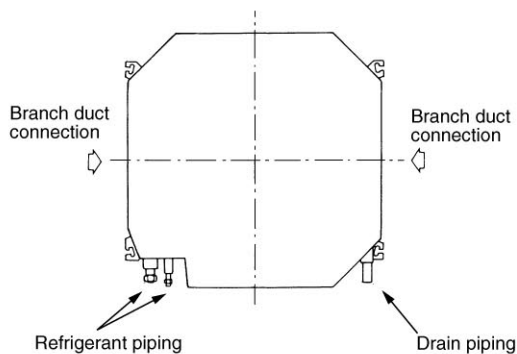
D Required compensation [Pa] for static pressure loss of fresh air intake duct to make air flow rate Q

E Static pressure [Pa] of indoor unit at air flow rate of Q

Qa .. Estimated fresh air intake [m³/min] without compensation of D

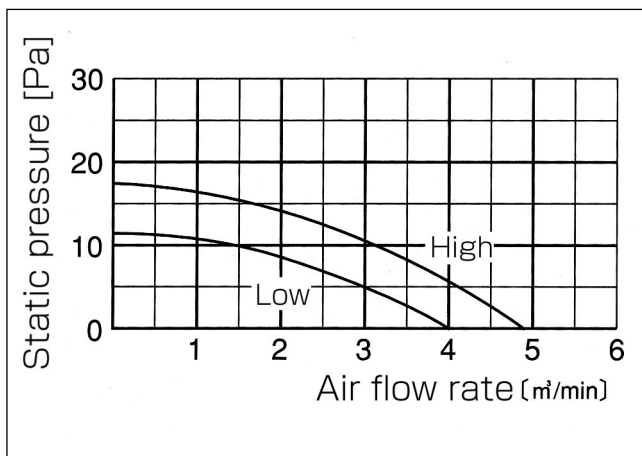
9-2-2. BRANCH DUCT (Installation at site)

To be compatible with both round and rectangular branch ducts, knockout holes are designed to fit to both shapes for flexible on-site installation.

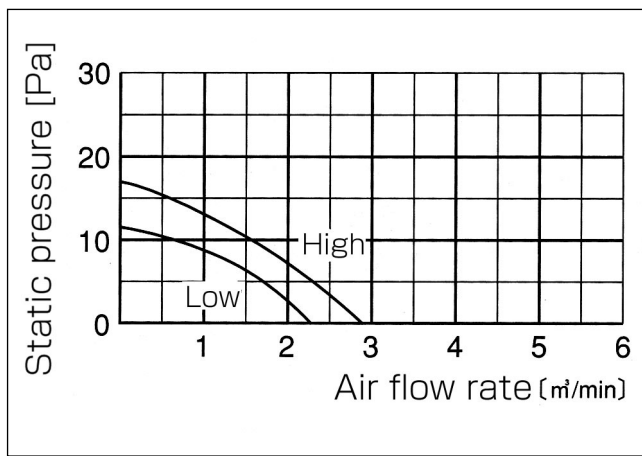


PLA-RP50AA
PLA-RP60AA

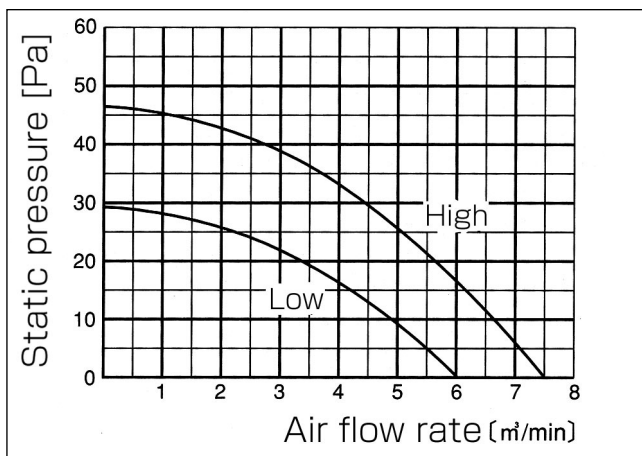
4-way air flow (horizontal vane) Rectangular duct



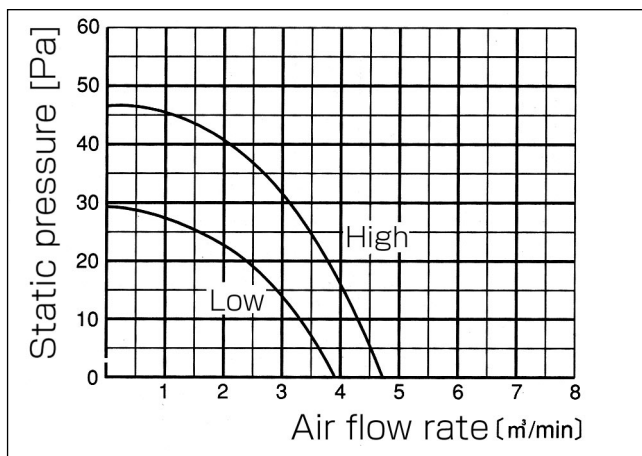
4-way air flow (horizontal vane) Round duct



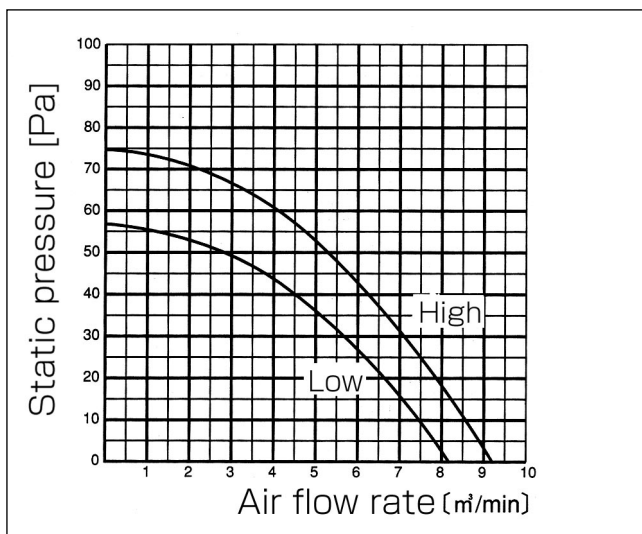
3-way air flow (horizontal vane) Rectangular duct



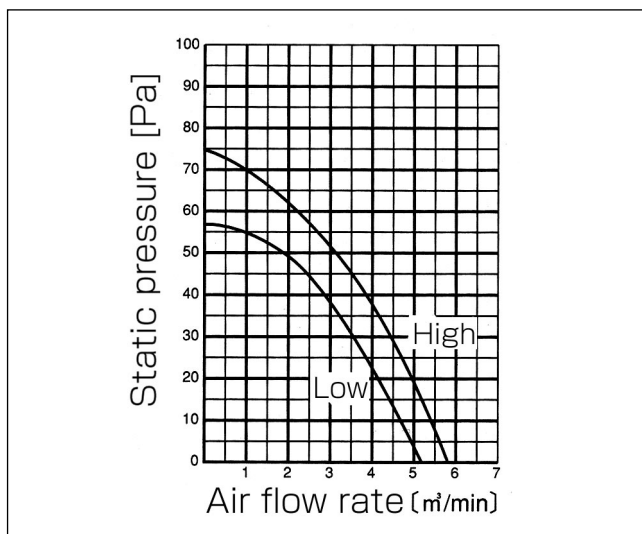
3-way air flow (horizontal vane) Round duct



2-way air flow (horizontal vane) Rectangular duct

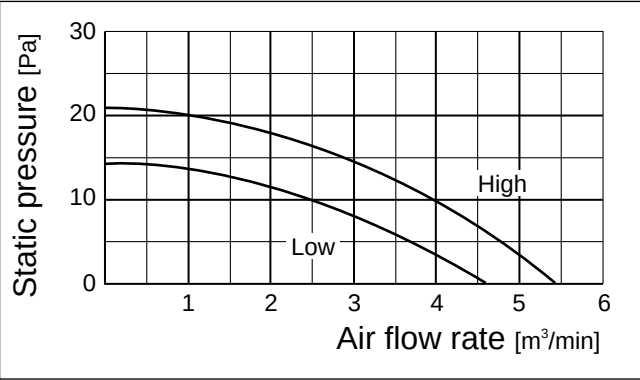


2-way air flow (horizontal vane) Round duct

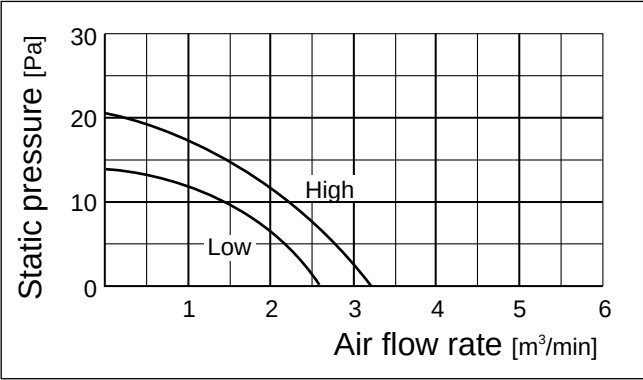


PLA-RP71AA

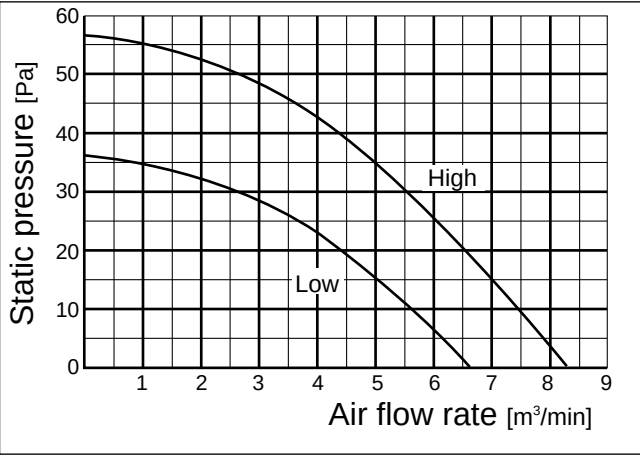
4-way air flow (horizontal vane) Rectangular duct



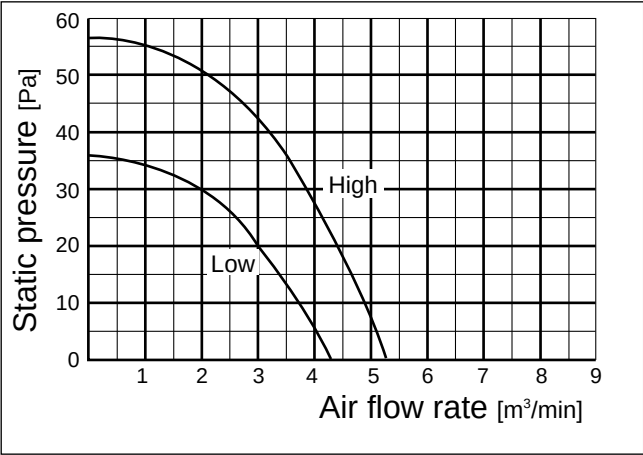
4-way air flow (horizontal vane) Round duct



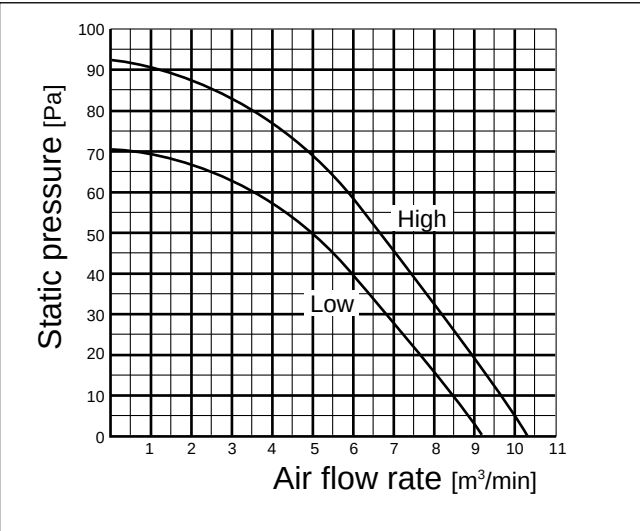
3-way air flow (horizontal vane) Rectangular duct



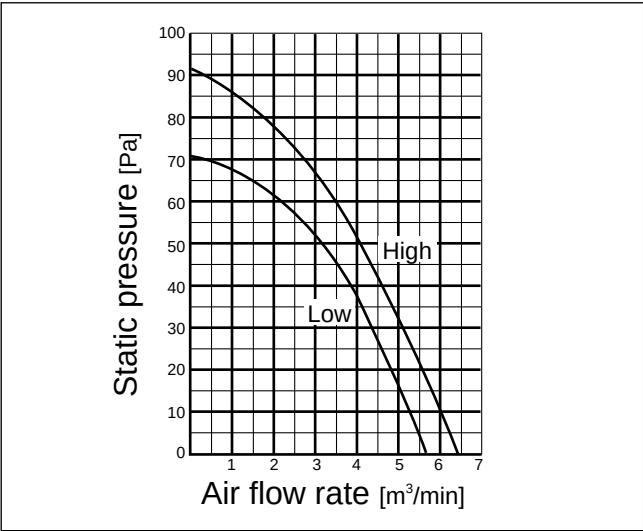
3-way air flow (horizontal vane) Round duct



2-way air flow (horizontal vane) Rectangular duct

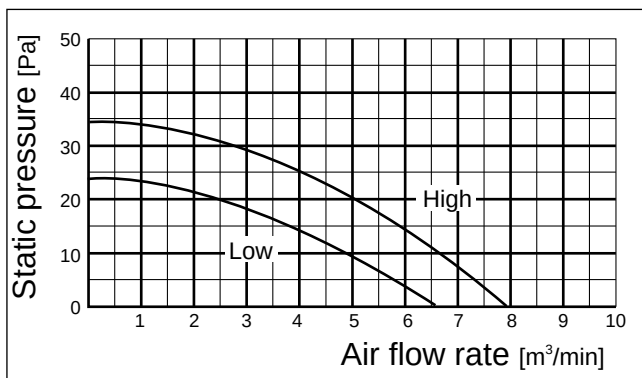


2-way air flow (horizontal vane) Round duct

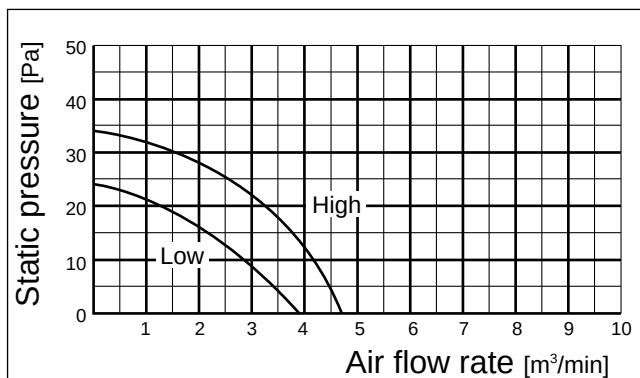


PLA-RP100AA2

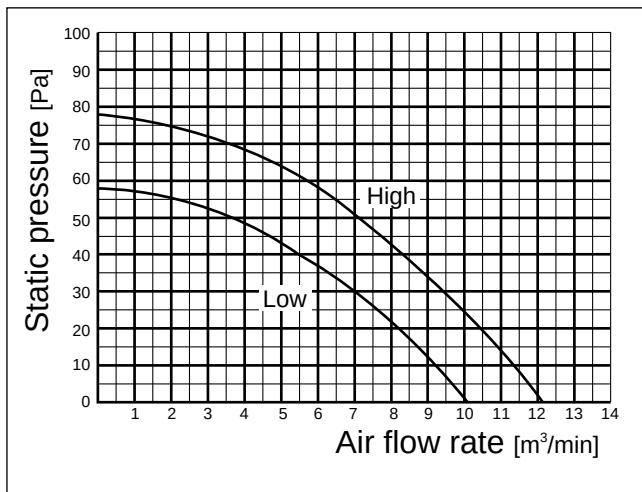
4-way air flow (horizontal vane) Rectangular duct



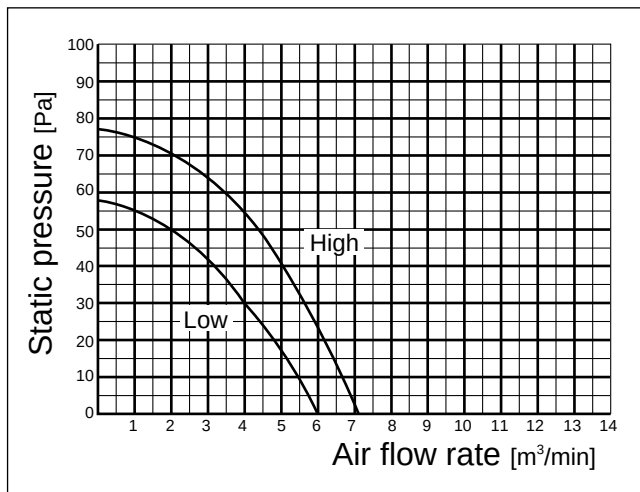
4-way air flow (horizontal vane) Round duct



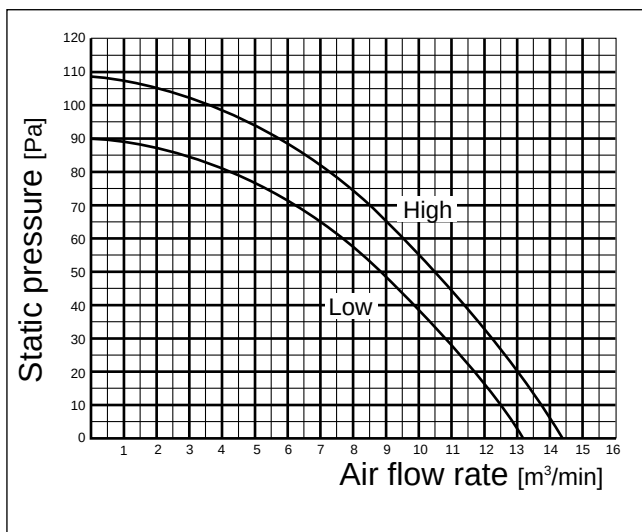
3-way air flow (horizontal vane) Rectangular duct



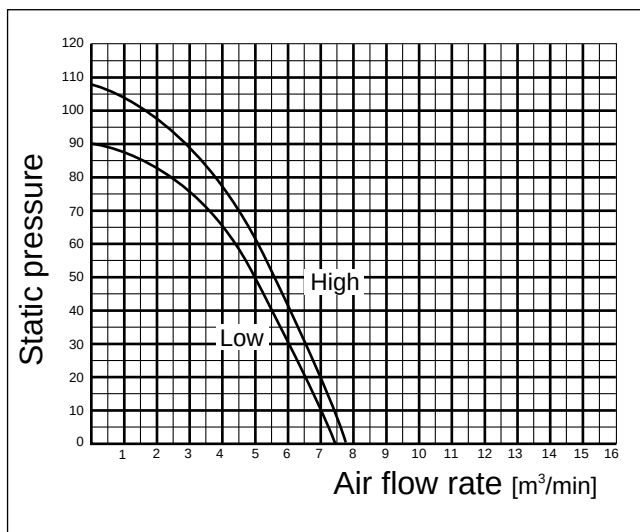
3-way air flow (horizontal vane) Round duct



2-way air flow (horizontal vane) Rectangular duct

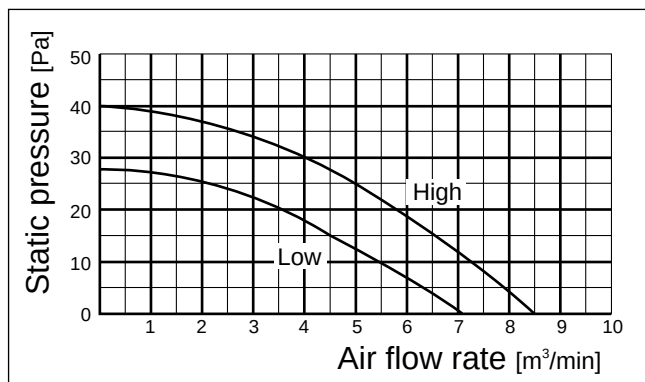


2-way air flow (horizontal vane) Round duct

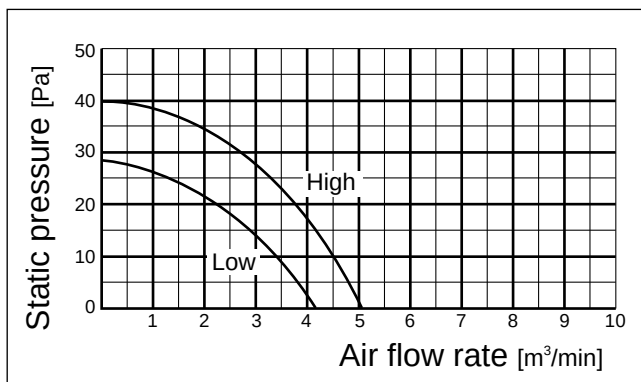


PLA-RP125AA2
PLA-RP140AA2

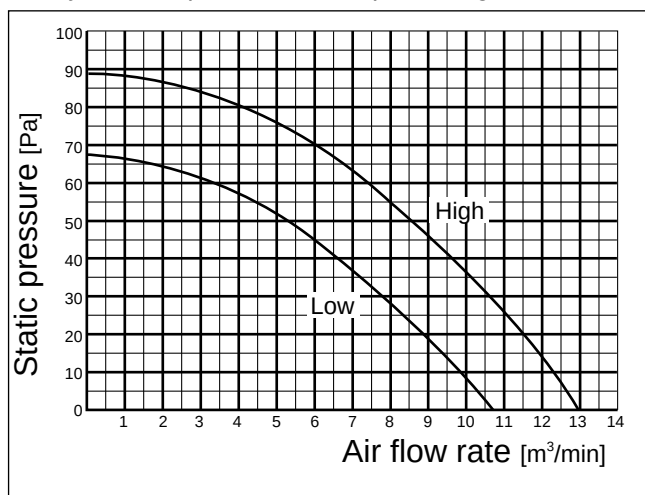
4-way air flow (horizontal vane) Rectangular duct



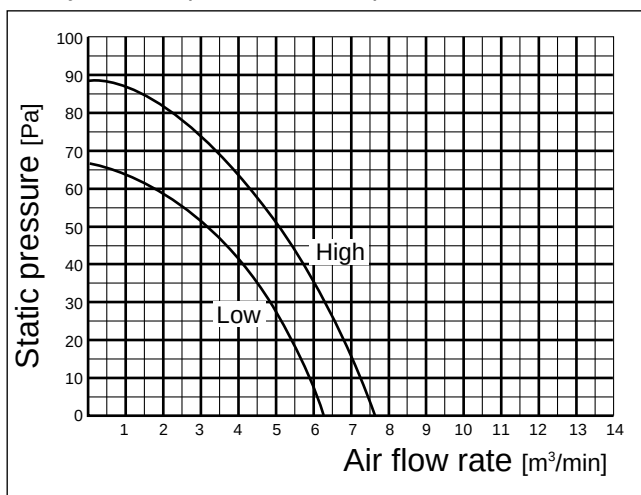
4-way air flow (horizontal vane) Round duct



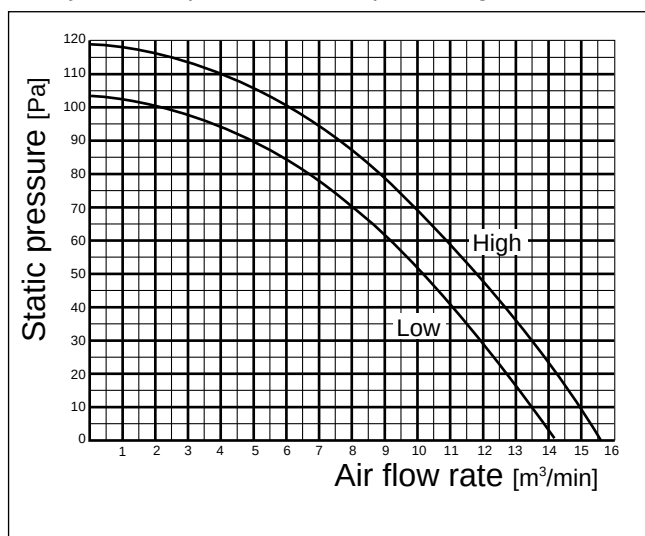
3-way air flow (horizontal vane) Rectangular duct



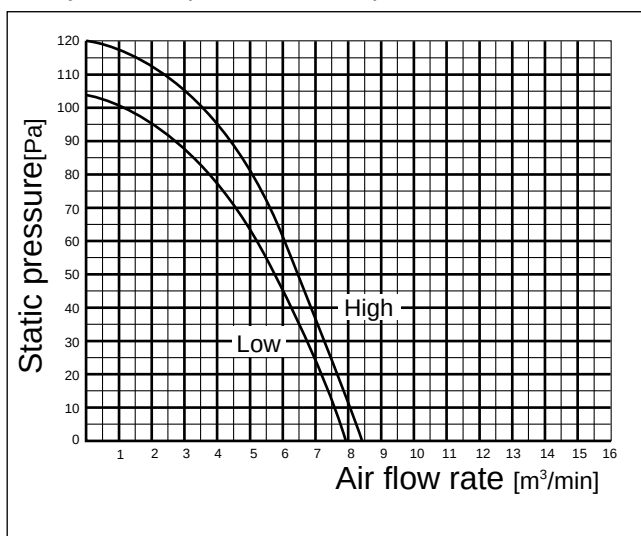
3-way air flow (horizontal vane) Round duct



2-way air flow (horizontal vane) Rectangular duct



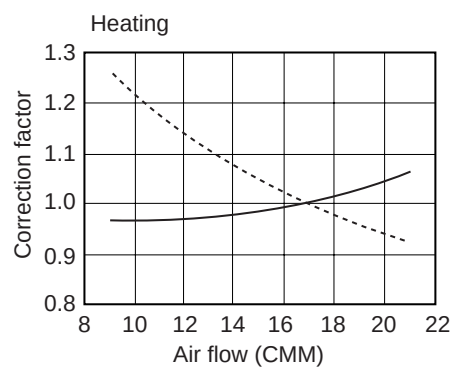
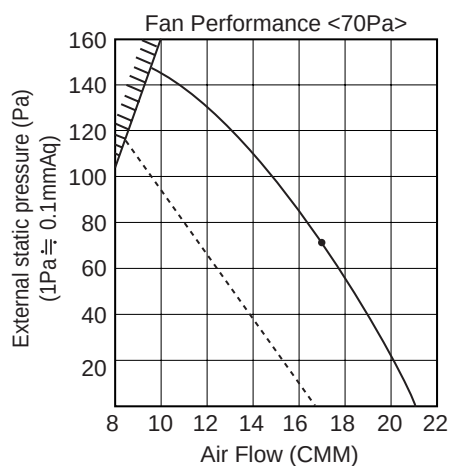
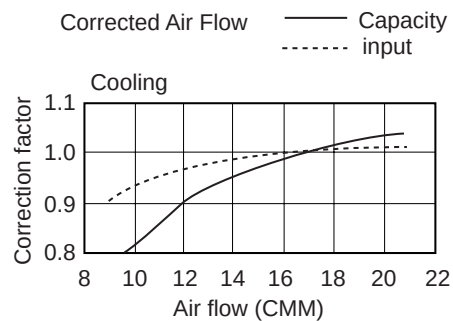
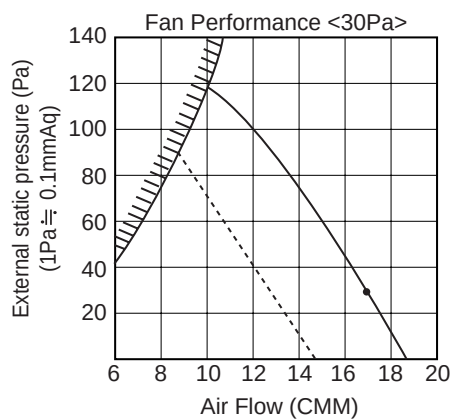
2-way air flow (horizontal vane) Round duct



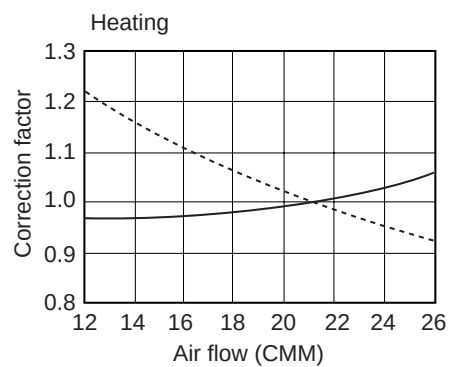
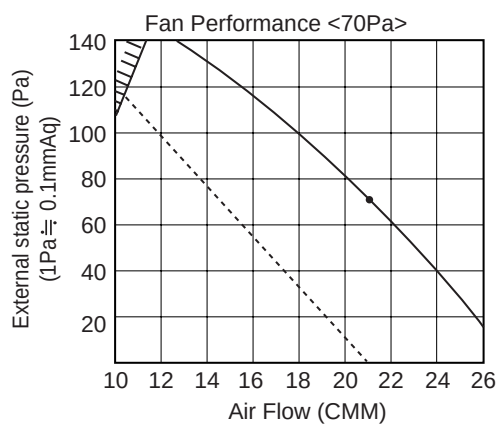
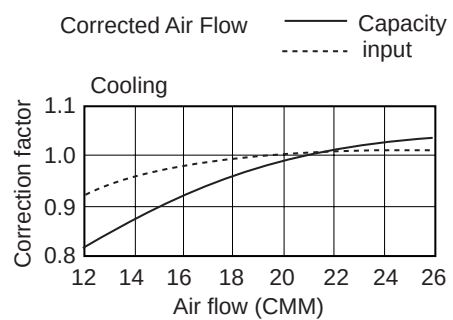
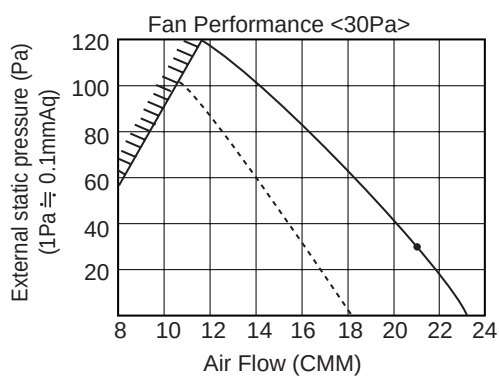
9-2. PEAD-RP·EA,EA2,GA

9-2-1. FAN PERFORMANCE AND CORRECTED AIR FLOW

PEAD-RP50EA

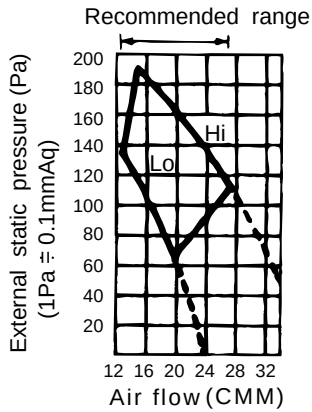


PEAD-RP60EA

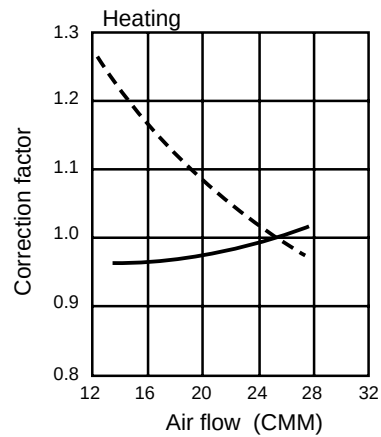
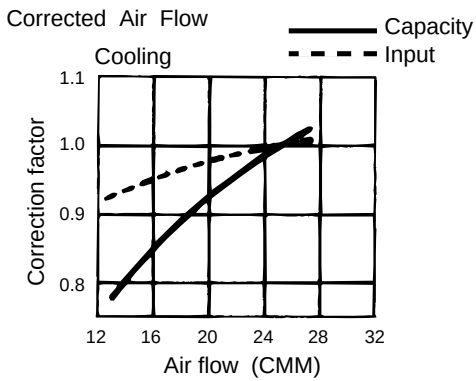
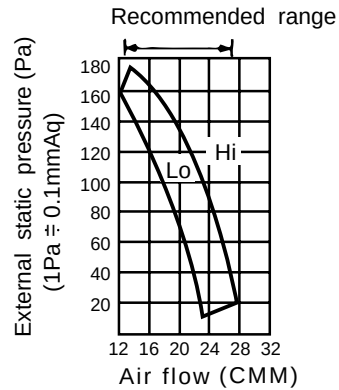


PEAD-RP71EA

Fan performance <130Pa>



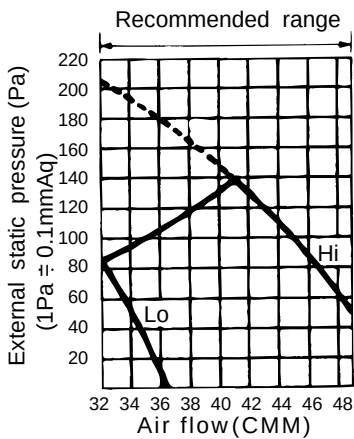
Fan performance <70Pa>



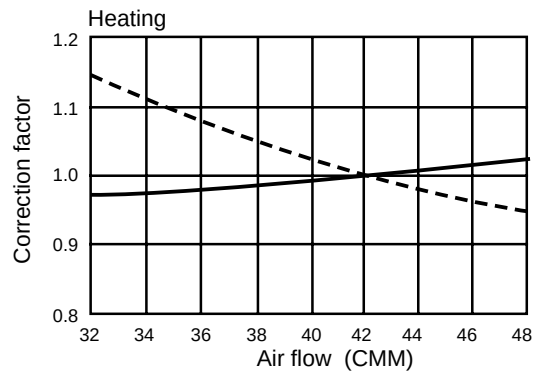
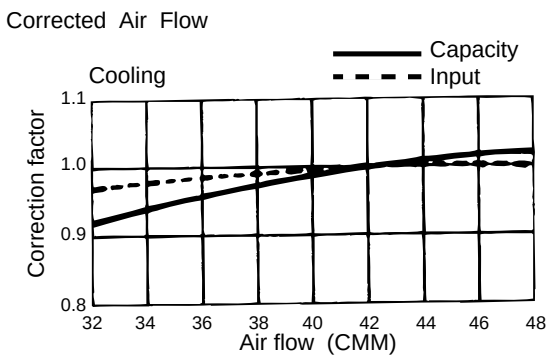
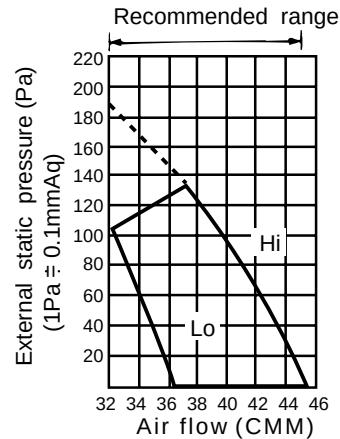
PEAD-RP100EA2

PEAD-RP125EA

Fan performance <130Pa>

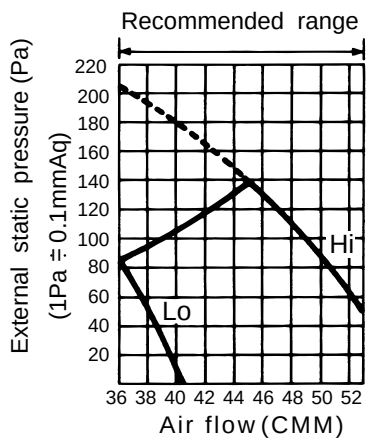


Fan performance <70Pa>

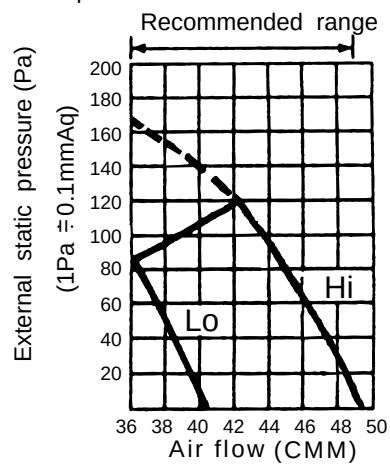


PEAD-RP140EA

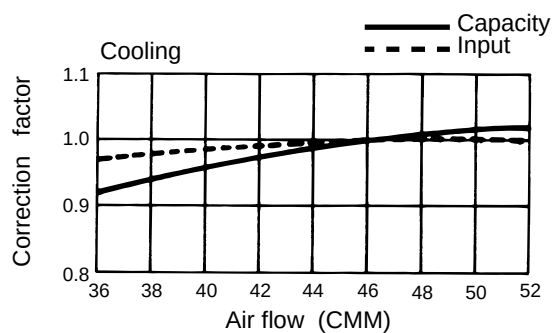
Fan performance <130Pa>



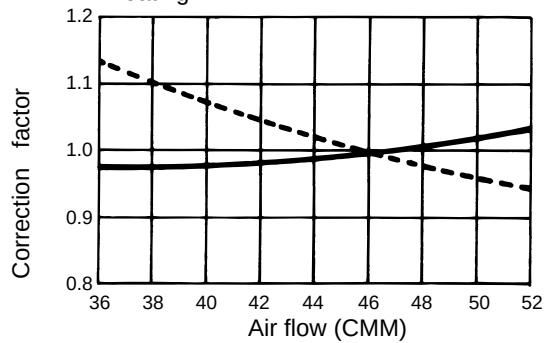
Fan performance <70Pa>



Corrected Air Flow

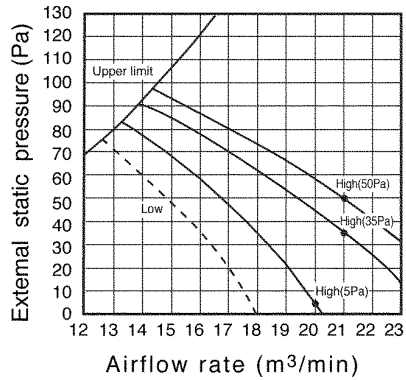


Heating

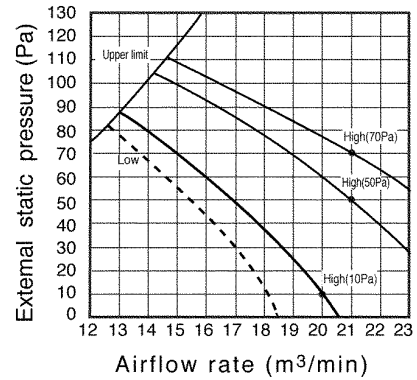


PEAD-RP60GA

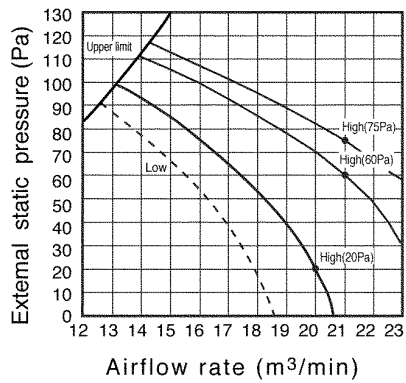
Fan performance <220V>



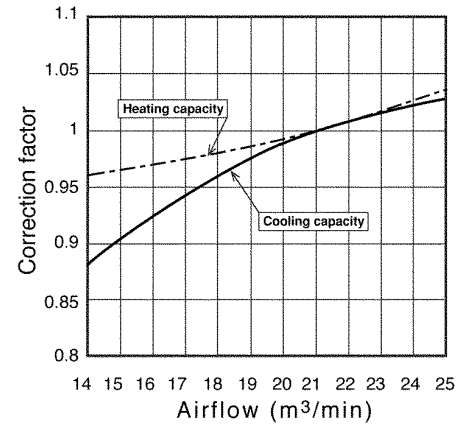
Fan performance <230V>



Fan performance <240V>

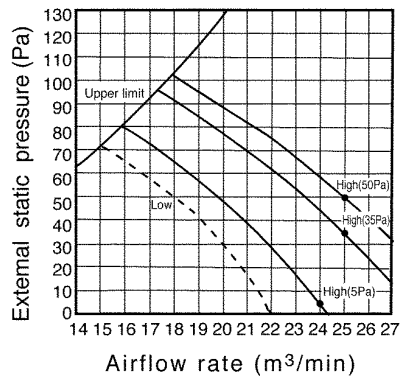


Corrected air flow

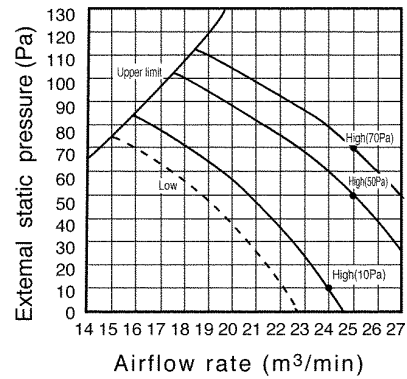


PEAD-RP71GA

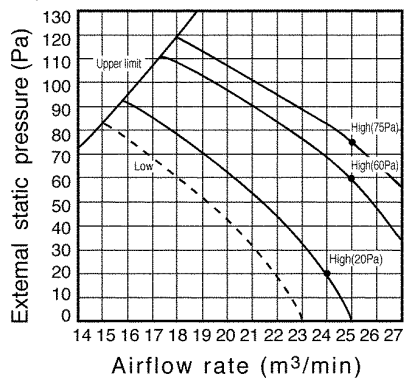
Fan performance <220V>



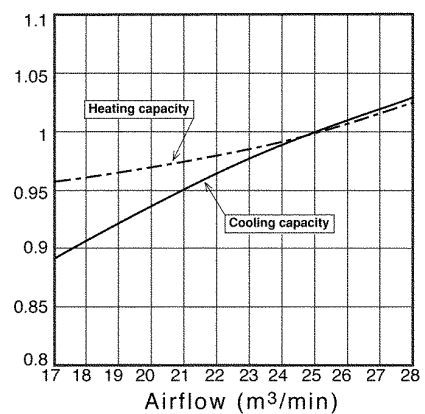
Fan performance <230V>



Fan performance <240V>

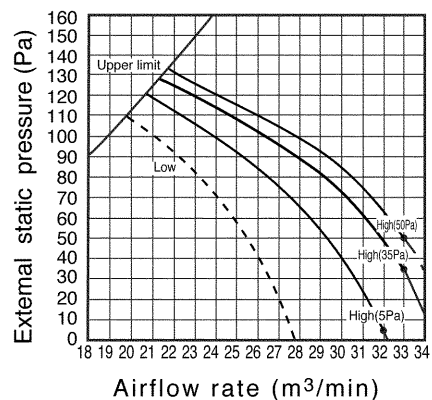


Corrected air flow

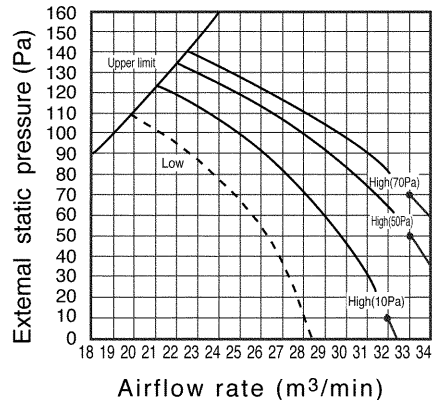


PEAD-RP100GA

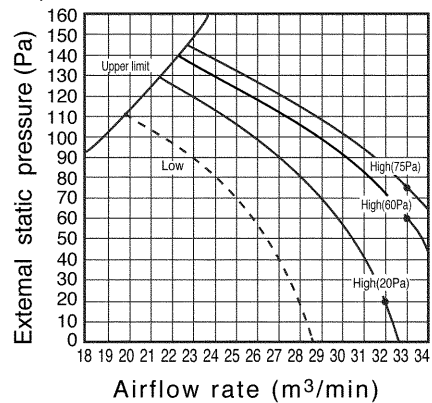
Fan performance <220V>



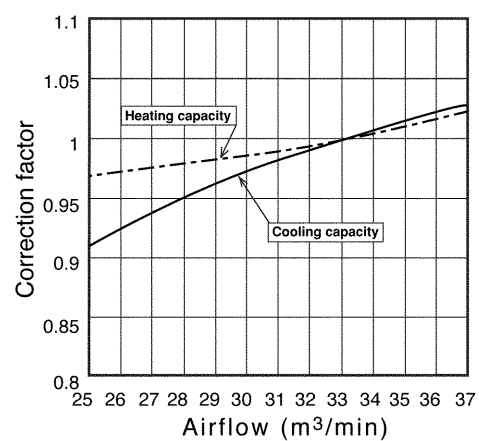
Fan performance <230V>



Fan performance <240V>

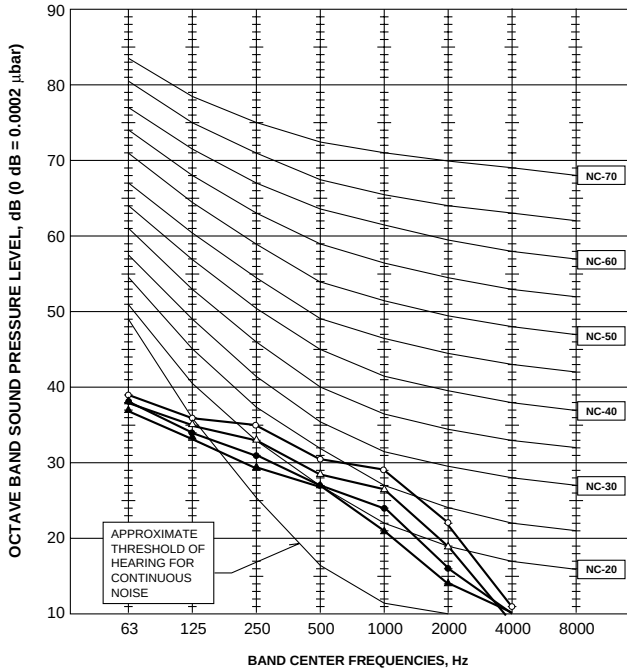


Corrected air flow



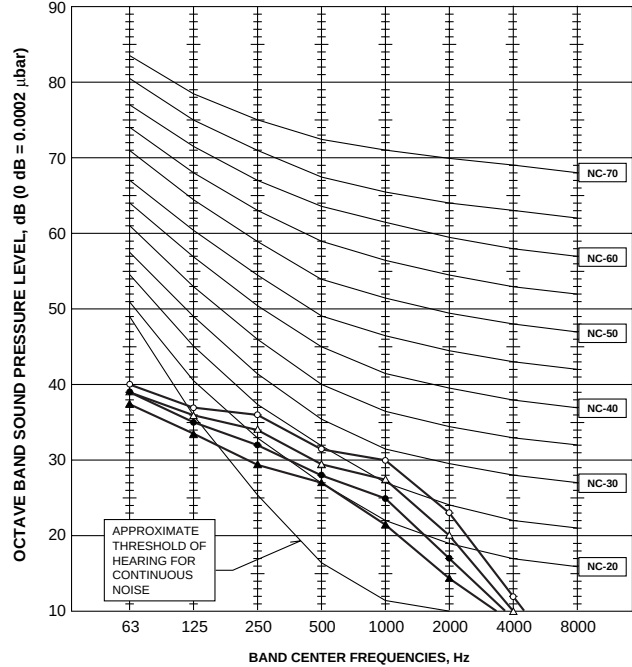
PLA-RP50AA
PLA-RP60AA

NOTCH	SPL(dB)	LINE
High	33	○—○
Medium1	31	△—△
Medium2	29	●—●
Low	28	▲—▲



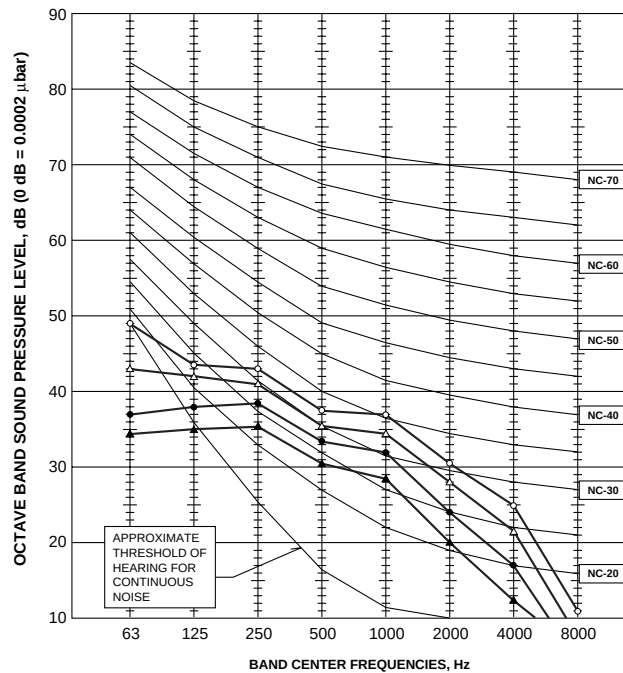
PLA-RP71AA

NOTCH	SPL(dB)	LINE
High	34	○—○
Medium1	32	△—△
Medium2	30	●—●
Low	28	▲—▲



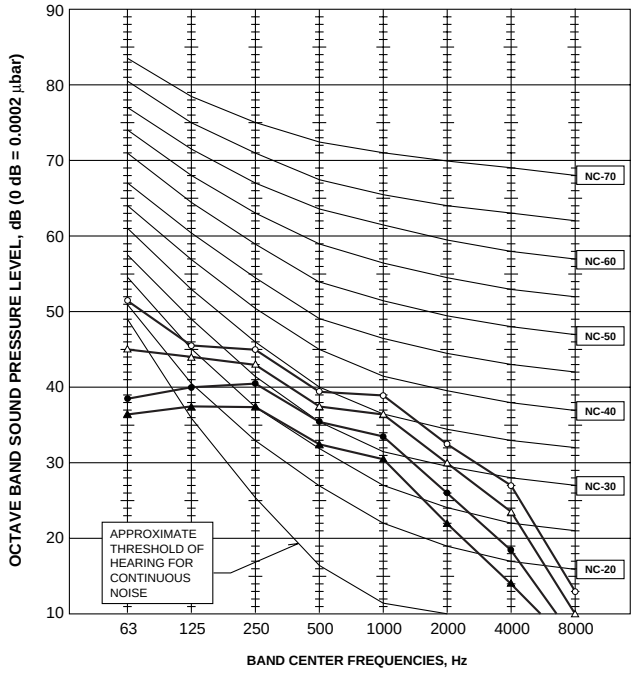
PLA-RP100AA2

NOTCH	SPL(dB)	LINE
High	41	○—○
Medium1	39	△—△
Medium2	36	●—●
Low	33	▲—▲



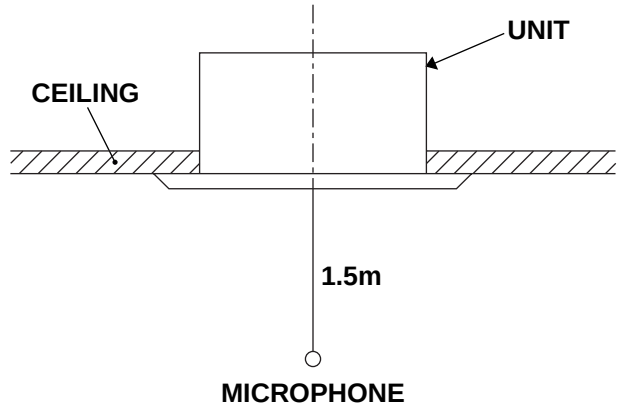
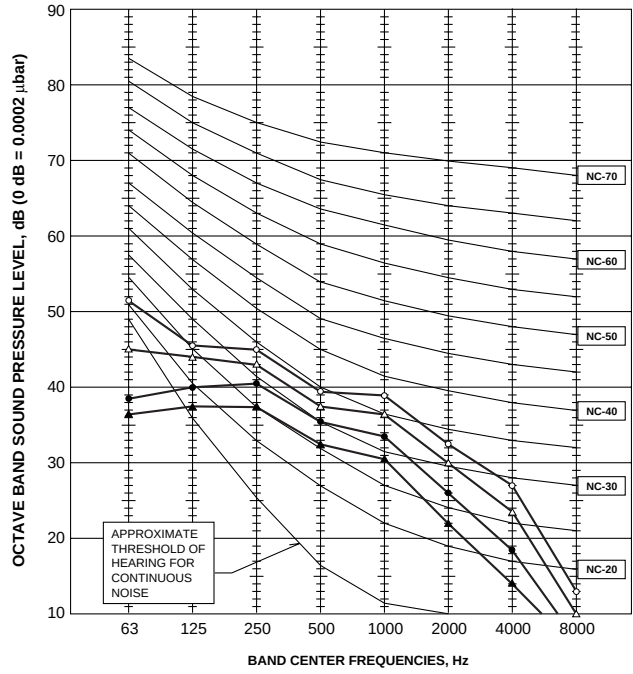
PLA-RP125AA2

NOTCH	SPL(dB)	LINE
High	45	○—○
Medium1	43	△—△
Medium2	40	●—●
Low	37	▲—▲

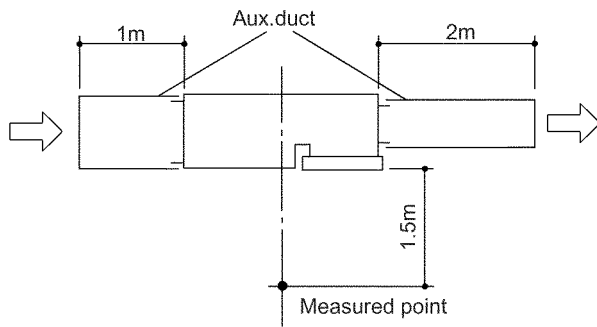


PLA-RP140AA2

NOTCH	SPL(dB)	LINE
High	45	○—○
Medium1	43	△—△
Medium2	40	●—●
Low	37	▲—▲



Ceiling concealed

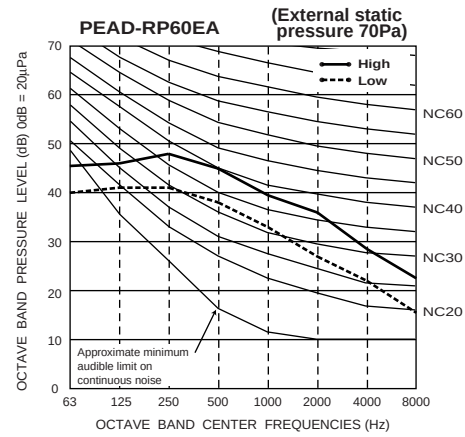
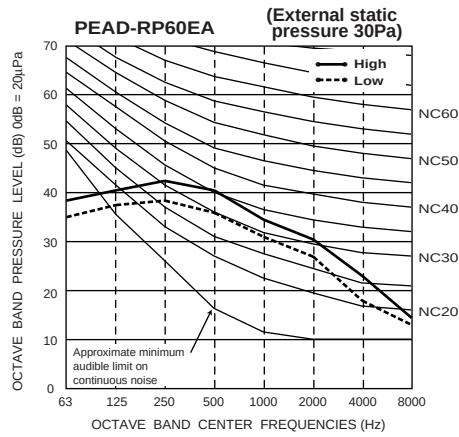
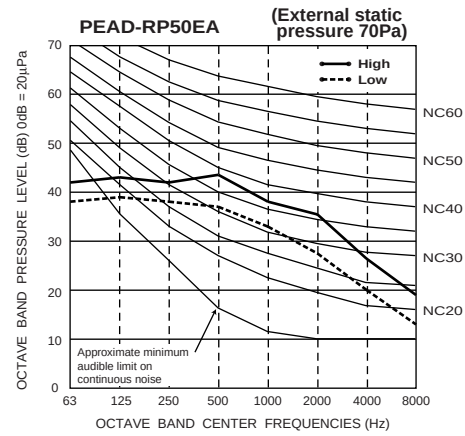
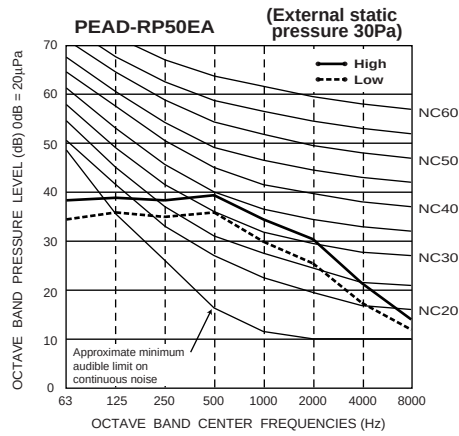


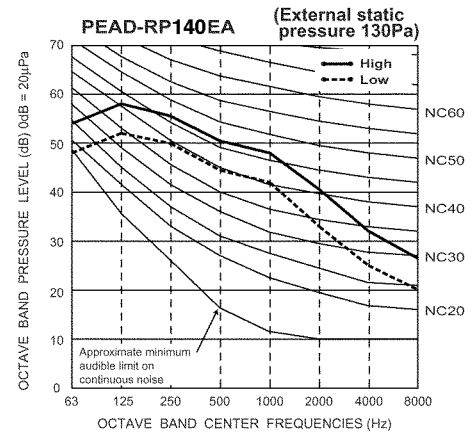
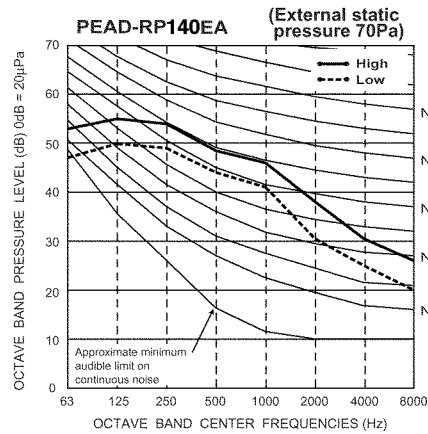
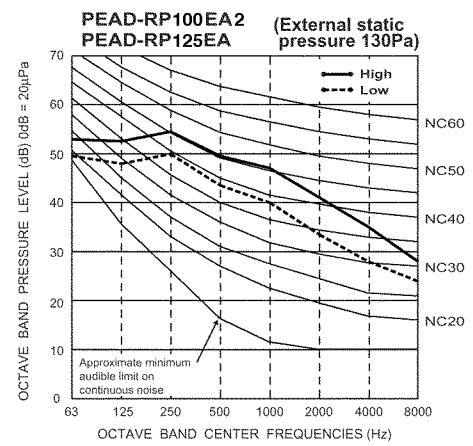
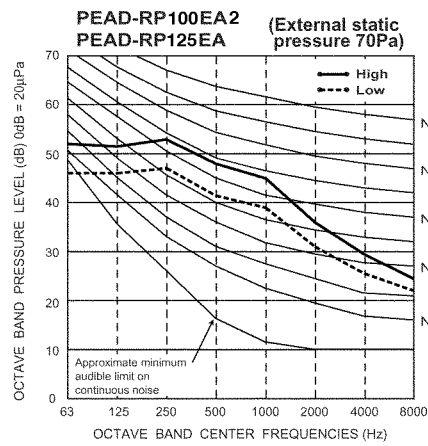
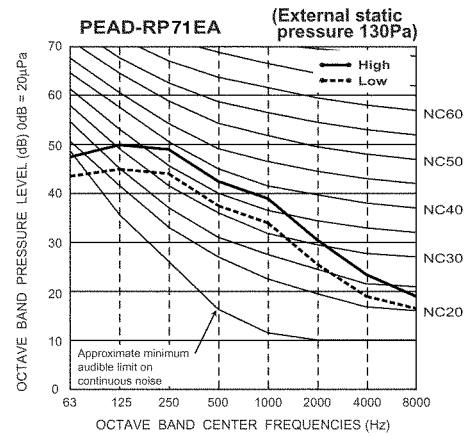
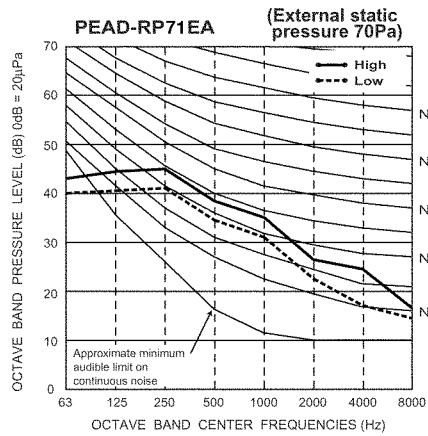
Noise level at anechoic room (Low-High)

Unit : dB(A)

Model	External static pressure		
	30Pa	70Pa	130Pa
PEAD-RP50EA	36-40	38-44	-
PEAD-RP60EA	37-41	39-46	-
PEAD-RP71EA	-	37-41	40-45 *
PEAD-RP100EA2	-	44-50	46-52 *
PEAD-RP125EA	-	44-50	46-52 *
PEAD-RP140EA	-	46-51	47-53 *

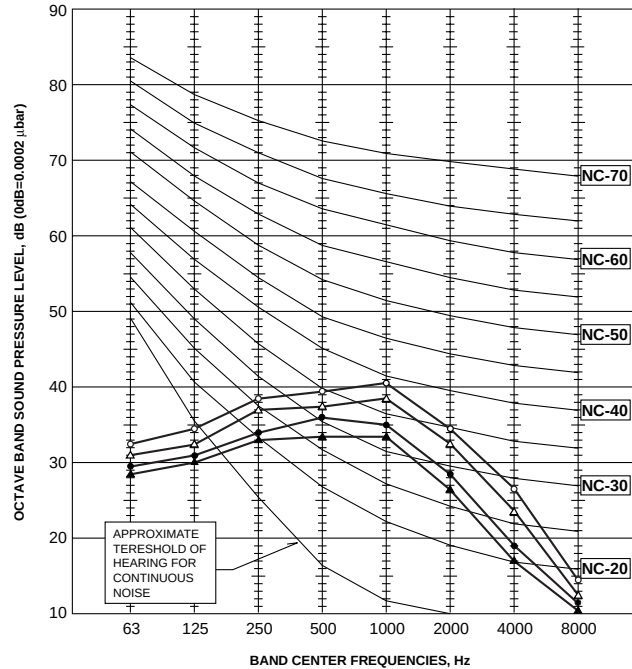
* Optional motor





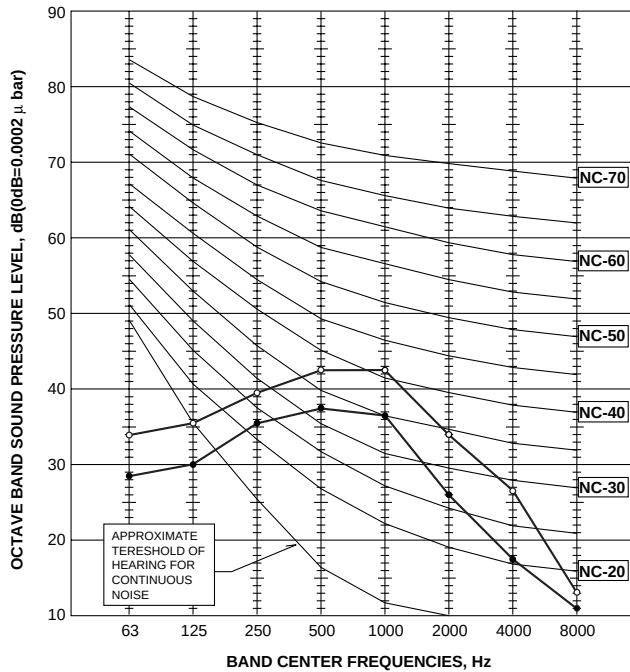
PKA-RP50GAL

NOTCH	SPL(dB)	LINE
High	43	○—○
Medium1	41	△—△
Medium2	38	●—●
Low	36	▲—▲



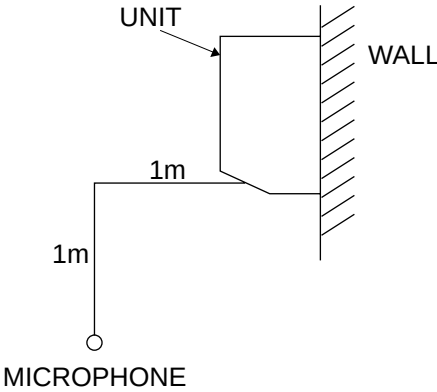
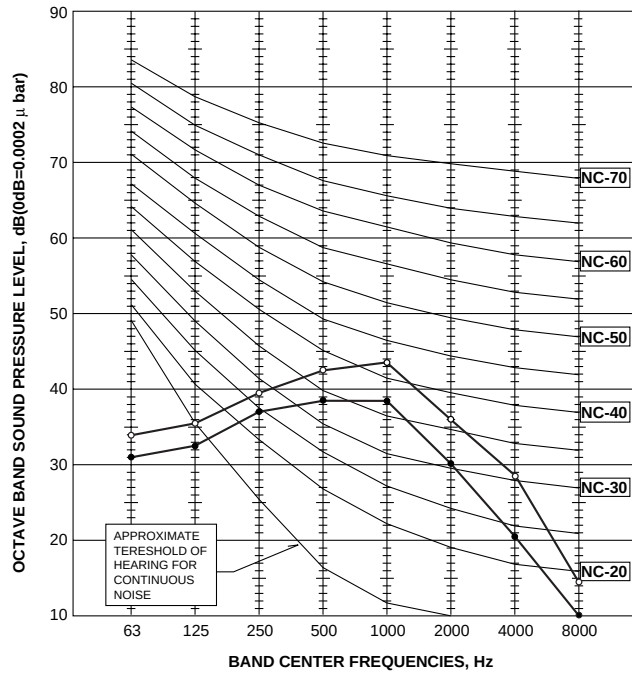
PKA-RP60FAL
PKA-RP71FAL

NOTCH	SPL(dB)	LINE
High	45	○—○
Low	39	●—●



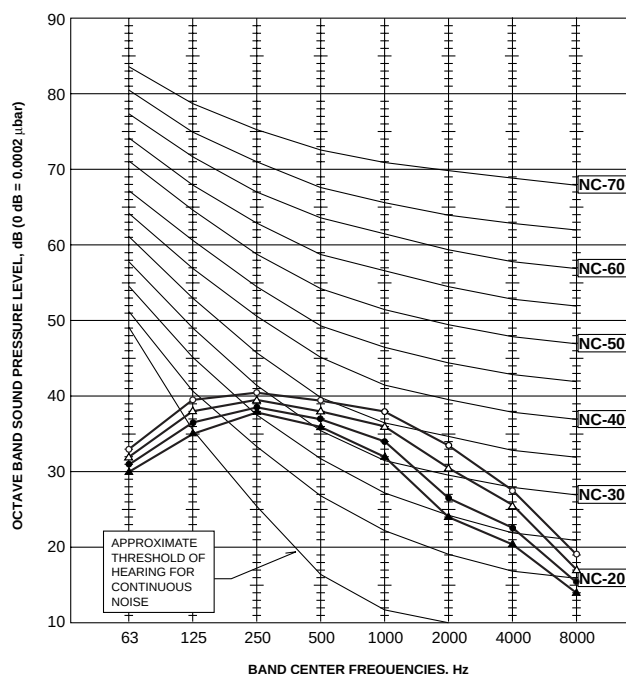
PKA-RP100FAL

NOTCH	SPL(dB)	LINE
High	46	○—○
Low	41	●—●



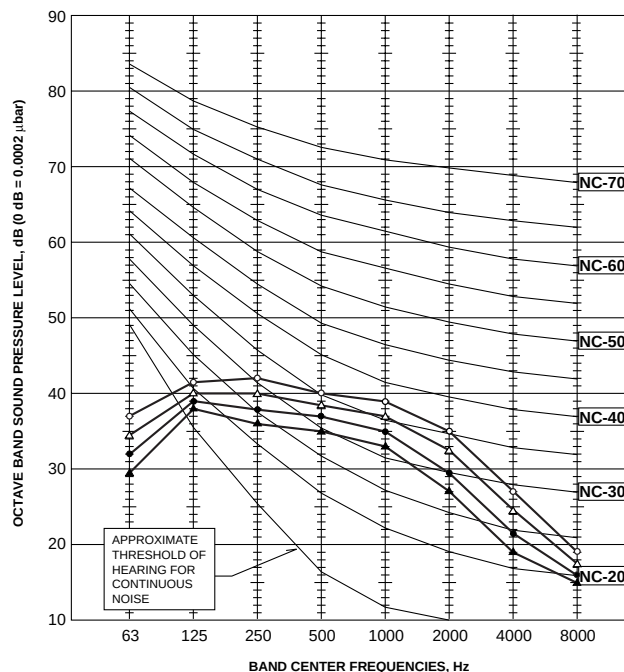
PCA-RP50GA

NOTCH	SPL(dB)	LINE
High	42	○—○
Medium1	40	△—△
Medium2	38	●—●
Low	37	▲—▲



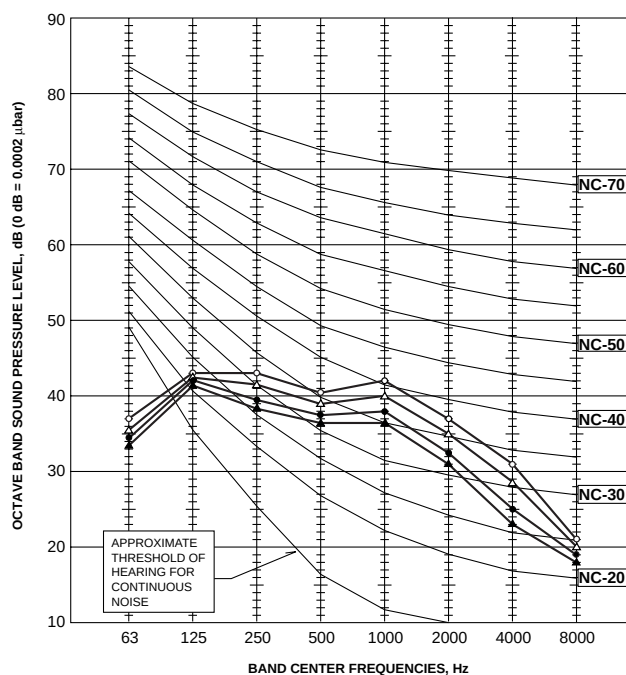
PCA-RP60GA PCA-RP71GA

NOTCH	SPL(dB)	LINE
High	43	○—○
Medium1	41	△—△
Medium2	39	●—●
Low	37	▲—▲



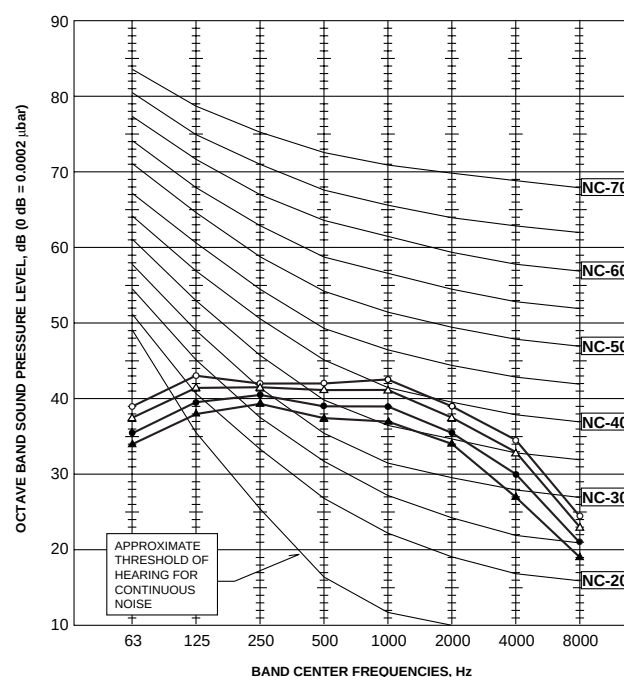
PCA-RP100GA

NOTCH	SPL(dB)	LINE
High	45	○—○
Medium1	43	△—△
Medium2	41	●—●
Low	40	▲—▲



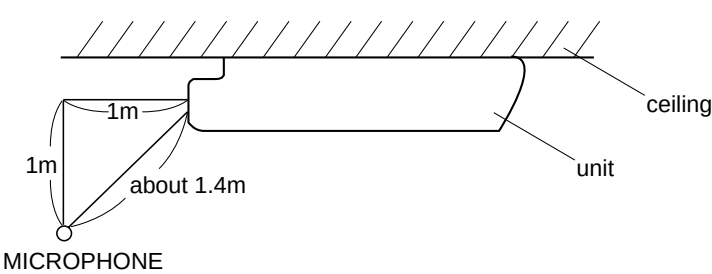
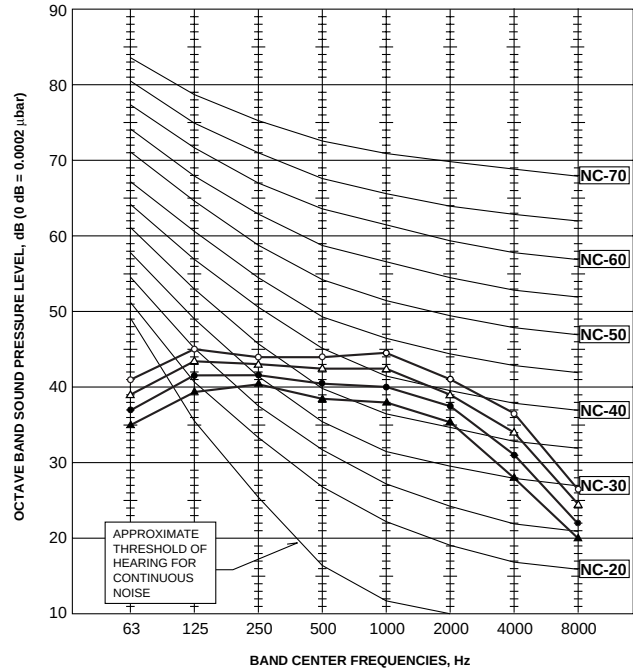
PCA-RP125GA

NOTCH	SPL(dB)	LINE
High	46	○—○
Medium1	45	△—△
Medium2	43	●—●
Low	41	▲—▲



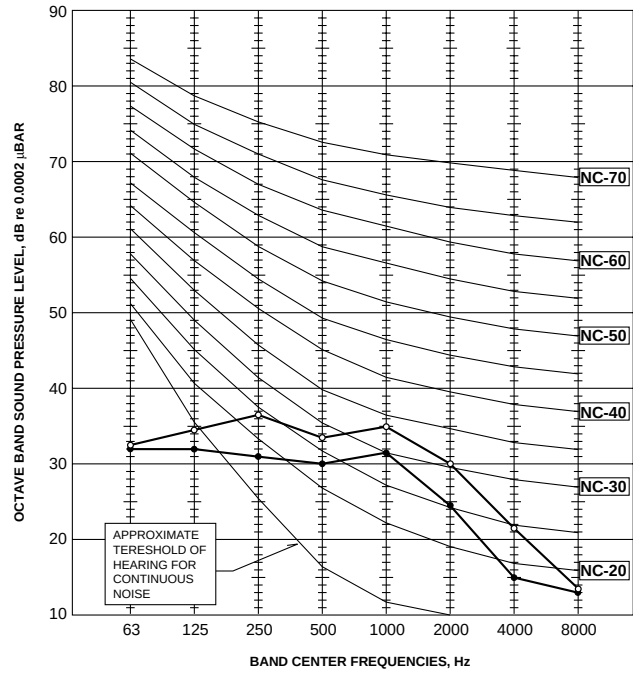
PCA-RP140GA

NOTCH	SPL(dB)	LINE
High	48	○—○
Medium1	46	△—△
Medium2	44	●—●
Low	42	▲—▲



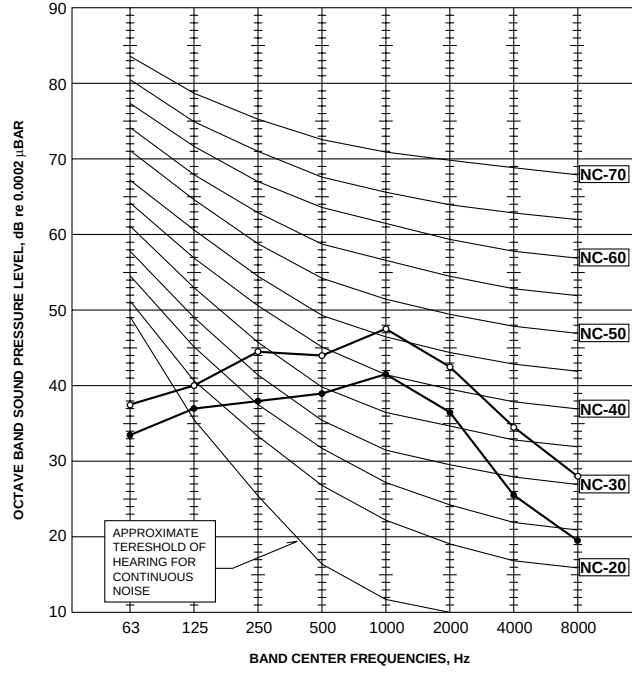
PCA-RP71HA

NOTCH	SPL(dB)	LINE
High	38	○—○
Low	34	●—●



PCA-RP125HA

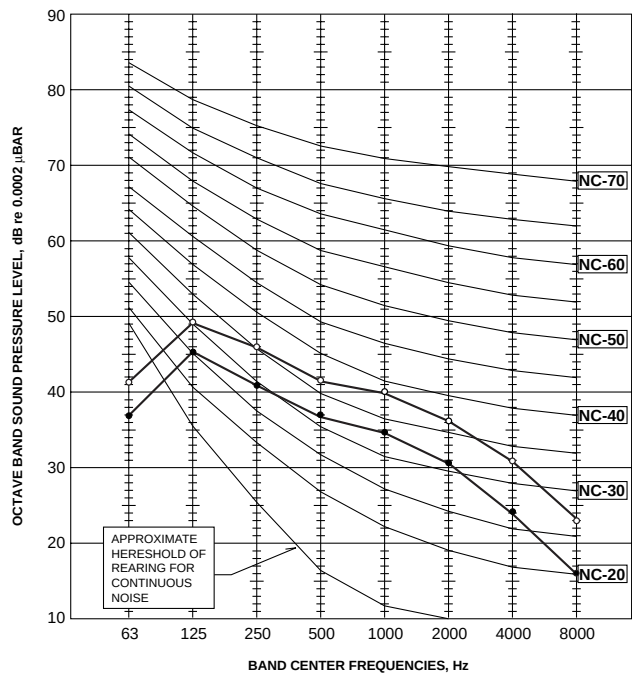
NOTCH	SPL(dB)	LINE
High	50	○—○
Low	44	●—●





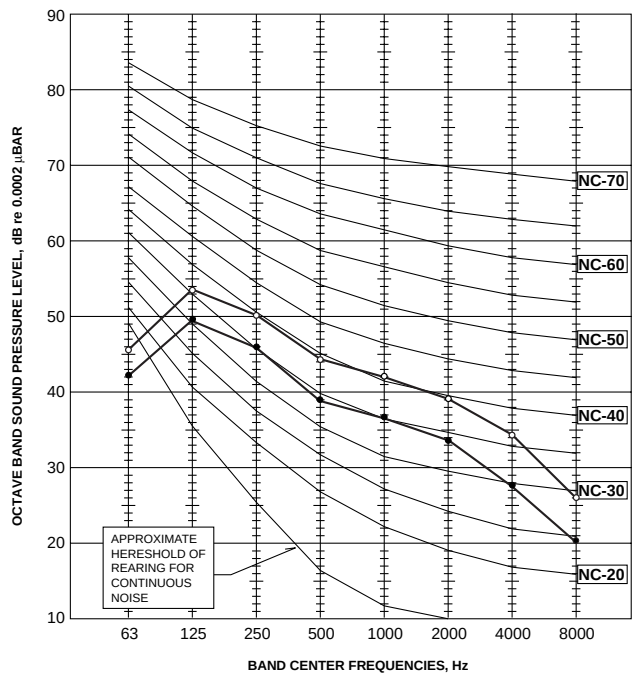
PSA-RP71GA

NOTCH	SPL(dB)	LINE
High	45	
Low	40	



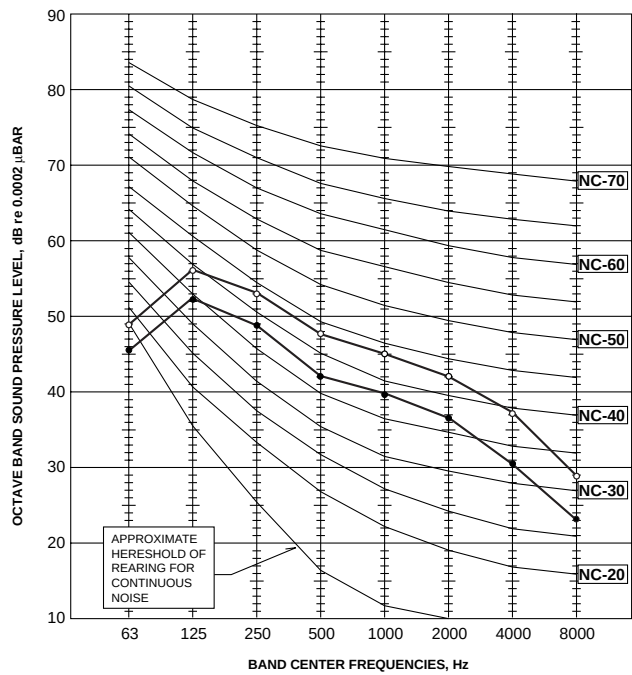
PSA-RP100GA

NOTCH	SPL(dB)	LINE
High	49	
Low	44	



PSA-RP125GA

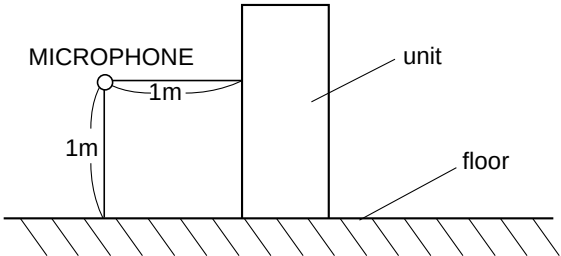
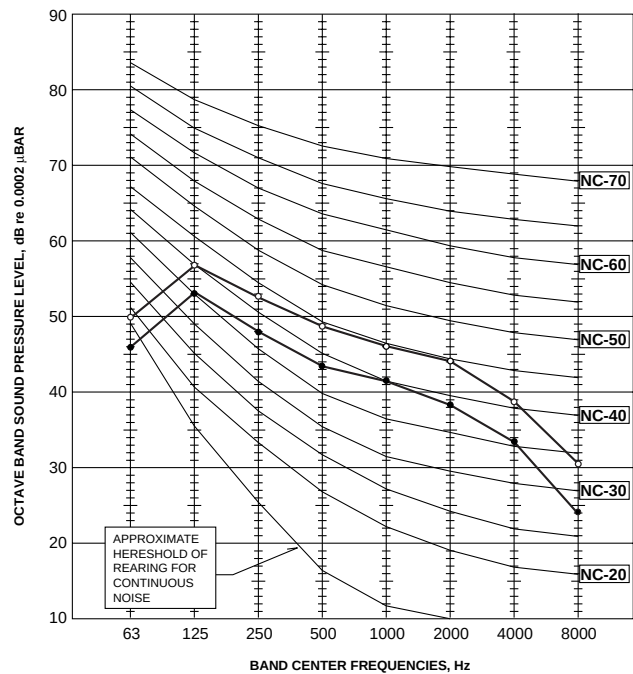
NOTCH	SPL(dB)	LINE
High	51	
Low	46	

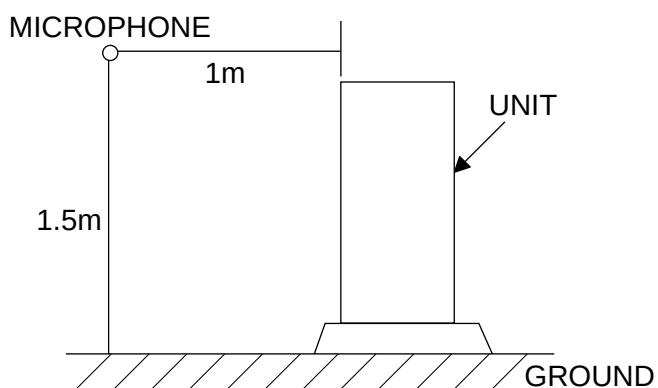




PSA-RP140GA

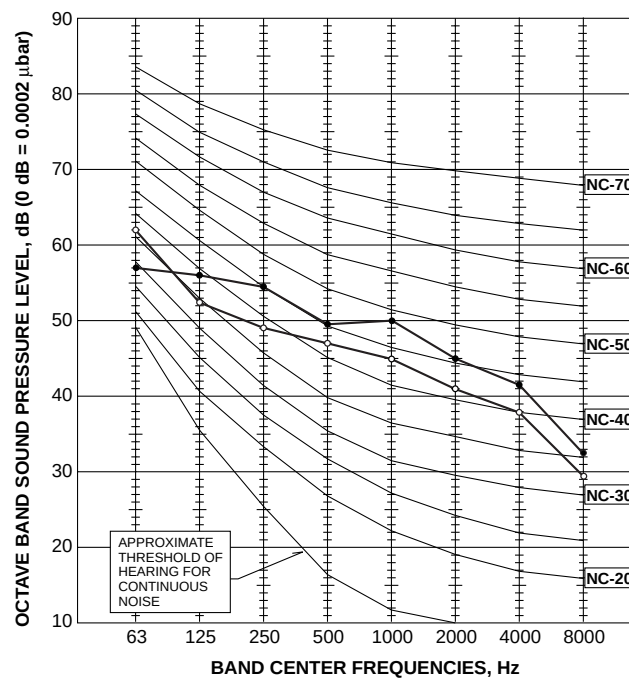
NOTCH	SPL(dB)	LINE
High	52	
Low	47	





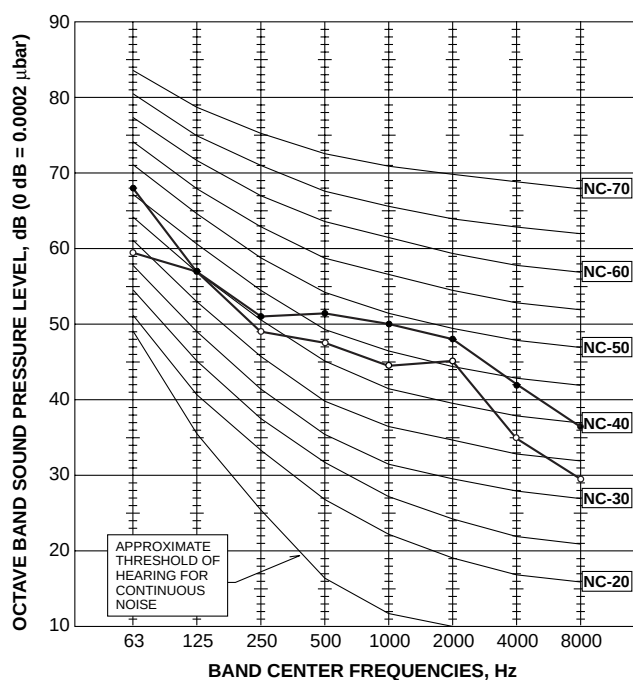
PUHZ-P100VHA

MODE	SPL(dB)	LINE
COOLING	50	○—○
HEATING	54	●—●



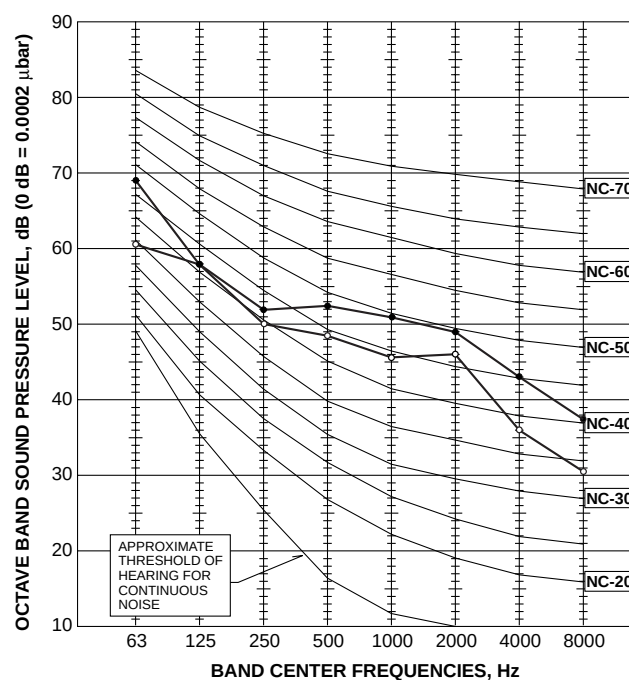
PUHZ-P125VHA

MODE	SPL(dB)	LINE
COOLING	51	○—○
HEATING	55	●—●



PUHZ-P140VHA

MODE	SPL(dB)	LINE
COOLING	52	○—○
HEATING	56	●—●



11-1. INDOOR UNIT

Part Name		Model Name	Applicable model
Remote sensor		PAC-SE41TS-E	All models
Remote operation adapter		PAC-SF40RM-E	
Remote on/off adapter		PAC-SE55RA-E	
Power supply terminal kit	L/N/Earth	PAC-SG96HR-E	All models except PCA-RP·HA and PEAD-RP·GA
	L/N	PAC-SG97HR-E	PCA-RP·HA PEAD-RP·GA
Multi-functional casement		PAC-SG03TM-E	PLA-RP·AA PLA-RP·AA2
High-efficiency filter element (PAC-SG03TM-E is needed.)		PAC-SG01KF	
Grille + Wireless remote controller		PLP-6AALM	
Grille + Wired remote controller		PLP-6AAMD	
Air outlet shutter plate (20 set, 2pcs/set)		PAC-SG06SP-E	
Wireless remote controller + Wireless Adapter		PAR-SL99B-E	PCA-RP·GA
Drain lift up mechanism		PAC-SH20DM-E	PCA-RP50,60GA
		PAC-SH21DM-E	PCA-RP71GA
		PAC-SH22DM-E	PCA-RP100,125,140GA
High-efficiency filter		PAC-SE80KF-E	PCA-RP50GA
		PAC-SE81KF-E	PCA-RP60,71,100GA
		PAC-SE82KF-E	PCA-RP125,140GA
Duct flange for fresh air		PAC-SF28OF-E	PCA-RP·HA
Filter element		PAC-SG38KF-E	
Decoration cover (Front + Suspending bracket cover)		PAC-SF81KC-E	PCA-RP71HA
		PAC-SF82KC-E	PCA-RP125HA
Wired remote controller (with terminal bed)		PAR-21MAAT-E	PKA-RP·GAL PKA-RP·FAL
Drain lift up mechanism		PAC-SE90DM-E	PKA-RP·FAL
Motor (for high external static pressure)		PAC-SK003MT-F	PEAD-RP125,140EA
			PEAD-RP100EA2
Drain lift up mechanism		PAC-KE03DM-F	PEAD-RP·EA,EA2
Insulation kit		PAC-SK010DK	PEAD-RP·GA
Wiring kit		PAC-SK020EC	

11-2. OUTDOOR UNIT

Part Name		Model Name	Applicable model
M-NET adapter		PAC-SF80MA-E	PUHZ-P100-140
A-control service tool		PAC-SK52ST	PUHZ-P100-140
Drain socket		PAC-SG61DS-E	PUHZ-P100-140
Air outlet guide (RP100,125,140 needs two piece.)		PAC-SG59SG-E	PUHZ-P100-140
Air protect guide		PAC-SH63AG-E	PUHZ-P100
		PAC-SG57AG-E	PUHZ-P125-140
Drain pan		PAC-SG64DP-E	PUHZ-P100-140
Filter dryer	(ϕ 9.52)	PAC-SG82DR-E	PUHZ-P100-140
Distribution pipe	(Twin)	MSDD-50SR-E	PUHZ-P100-140
	(Triple)	MSDT-111R-E	PUHZ-P140
Joint pipe (Unit → Extension pipe)	(ϕ 15.88 → ϕ 19.05)	PAC-SG75RJ-E	PUHZ-P100-140

Mr. SLIM™

 **mitsubishi electric corporation**
HEAD OFFICE : TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN